

Exploring the Shifting Dynamics of Information Source Selection: Situational Characteristics and the Rise of Artificial Intelligence

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Abstract

People often seek information from other people, including peers and experts, for various decision-making situations. Internet platforms such as online discussion forums have greatly expanded access to these human information sources. However, the rapid raise and prevalence of ChatGPT and other large language models may shift the focus away from these traditional human sources toward artificial intelligence. Research has shown that information source selection depends in part on the characteristics of the situation for which information is sought. In this paper we investigate situational characteristics that impact the selection of peers, experts, or ChatGPT as an information source. The data reveals that the selection of ChatGPT as an information source is tied to different characteristics than that of peers or experts, implying that AI is not yet a full substitute for human information sources.

Keywords: ChatGPT, experts, peers, situational characteristics

1. Introduction

In an era where information is readily accessible and knowledge plays a critical role in collaboration and decision-making, humans have long relied on the guidance and expertise of other people to address their informational needs. Traditional human sources have long been regarded as valuable reservoirs of expertise and experience, providing a sense of relatability and personal connection. Internet-enabled platforms such as online discussion forums and online communities have dramatically enhanced accessibility to information from other humans, including both experts and peers, to aid in the collaborative

information seeking process. However, the recent advent of powerful language models like ChatGPT introduces an alternative, AI-driven approach to supplying informational needs. These models harness vast amounts of data and sophisticated algorithms to generate responses that mimic human-like conversations, thus challenging the traditional boundaries of human-centric knowledge dissemination.

Our research seeks to answer crucial questions about how people choose between online information sources that provide access to human-generated information (i.e., online forums that connect peer and expert users) and those that provide AI-generated information (e.g., ChatGPT). Drawing from previous online forum research and situation theory, we posit that this decision depends in large measure on characteristics of the situations for which information is being sought. By analyzing data collected about real-world scenarios from individuals who use both online forums and ChatGPT, we aim to identify patterns and discern the unique circumstances under which individuals are more likely to turn to ChatGPT, or online forum users (peers and experts) for information. In short, our focal research question is:

RQ: What are the situational characteristics that lead an information seeker to use ChatGPT as an information source and how do those compare to the characteristics that lead individuals to seek out human input from peers or experts on online forums?

By understanding the distinctive characteristics associated with the selection of ChatGPT as an information source compared to traditional human sources, we provide valuable insights into the changing dynamics of knowledge acquisition and decision-making in today's rapidly evolving information landscape. Furthermore, our findings have

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practical implications for designing effective information retrieval systems, enhancing human-AI collaboration systems, and shaping future AI technologies to better serve the information needs of individuals.

2. Literature review

2.1. Information seeking on online forums

Gathering information is an essential part of human problem-solving behavior. Traditionally, the information-seeking process required direct human-to-human contact via means of verbal or written communication, imposing practical limitations on the breadth of information sources available. Today, however, technological advancements have made it easier to access information from a wide range of individuals who might otherwise be less accessible. The advice and knowledge shared by these individuals can be captured in databases and online repositories where people can go to seek information. Among the most popular types of such repositories are online question-and-answer forums (or simply online forums), where users can post questions to other forum users and review previous questions and answers by other forum participants.

Research suggests that online forums have become a particularly popular source of information because they are dedicated to specific topics of interest and they provide access to information from a wide variety of fellow forum users (Wong, 2019). At a broad level, these users can be categorized as “experts” or “peers” (Jensen et al., 2021; Meservy et al., 2021). Experts are individuals who possess extensive knowledge, skills, training, or ability in a specific domain and are capable of providing professional, authoritative, or other formal recommendations (Keh & Sun, 2006). Their higher level of expertise is often indicated by some form of an icon or visual badge assigned either autocratically by the forum moderators or democratically by the forum participants endorsing in the valuable contributions they have made over time (Watts & Zhang, 2008). On the other hand, the majority of forum participants can be classified as peers, those lacking formal credentials or specialized expertise to be considered an expert (Keh & Sun, 2006). However, peers can still contribute to the forums based on their interests, opinions, or personal experiences related to the topic of interest (Fan & Lederman, 2017). As such, peers constitute the majority of most online forum users. Cues such as star rating or up/down-votes are typically utilized to capture the consensus opinion of peers and the information they are providing.

In an attempt to gain a deeper understanding of the utilization of online forums as sources of information, recent studies have started to explore the factors that drive users' reliance on advice from peers and experts found within these online platforms (e.g., Jensen et al., 2021; Meservy et al., 2021). Drawing inspiration from situation theory (Horstmann et al., 2018; Rauthmann et al., 2020), this line of research suggests that the inclination towards peer or expert advice on forums is influenced, in part, by the specific attributes of the information-seeking situation (Jensen et al., 2021). This hypothesis is rooted in observations derived from consumer behavior research, which has demonstrated that the assessment of an information source “is highly contextual and depends on the receiver's association with the medium, the source of the message, and the message itself” (Metzger et al., 2003, p. 317). For instance, findings from various domains of judgment and decision-making imply that individuals tend to favor expert opinions when confronted with high levels of risk and uncertainty (Keh & Sun, 2006; Racherla & Friske, 2012), or when faced with intricate situations that demand advanced cognitive processing (Gilens & Murakawa, 2002; Kranzbühler et al., 2015; Vennik et al., 2014). However, experts' viewpoints may be subject to doubt and skepticism due to perceived hidden agendas, biases (Greenstein & Zhu, 2018), or when their lack of connection with the information seeker raises concerns about the applicability of their recommendations. On a similar note, some studies suggest that in “experiential” situations that are subjective or reliant on personal preferences or tastes (Keh & Sun, 2006; Smith et al., 2005), individuals may lean towards the opinions of their peers. Nonetheless, peer opinions can also be disregarded in cases where the feedback is perceived as anecdotal, uninformed, ill-intentioned, or influenced by herd mentality (Mackay, 2015).

Likewise, the research on online forums reveals diverse findings concerning the reliance on peer versus expert opinions. For instance, in the realm of computer programming, Meservy et al. (Meservy et al., 2014) discovered that while the expertise of the source mattered, forum users placed greater weight on peer opinions when evaluating the viability of programming solutions. Conversely, a study focusing on health and fitness forums uncovered that participants were more influenced by expert opinions compared to the broader forum community (Fadel et al., 2019). To shed light on these inconsistencies, exploratory research employed situation theory (Horstmann et al., 2018; Rauthmann et al., 2020) to examine how distinct situational attributes (e.g., whether the situation was perceived as threatening,

fun, mundane, etc.) influenced the preference for peer or expert opinions (Jensen et al., 2021). The results yielded significant findings for several attributes but also revealed a considerable percentage of unexplained variability in the preference for peer or expert opinions.

2.2 Situational characteristics for peers and experts

The divergence of results observed in the work cited above has prompted scholars to undertake exploratory examination of how situational factors influence information source preferences in online forums. For instance, a study conducted by Meservy et al. (2021) used qualitative content analysis of open-ended survey questions, to identify, code, and subsequently cluster stated reasons for relying on peers or expert advice in online forums. Their findings revealed 16 distinct situational characteristics that prompt individuals to seek information from peers or experts on online forums. Ten of these characteristics, shown in Table 1, tended to be associated with preference for peer input, while the remaining six, shown in Table 2, were associated with a preference for experts.

Table 1. Peer situational characteristics as identified by Meservy et al. (2021)

Concept	Description
Common Experience	Situation is typically experienced by a large number of people
Personal Experience	Person has dealt with the same or similar issue
Inexpensive	Solution can be accessed/implemented economically
Lack of bias	Person has no ulterior motives in providing solution
Low Stakes	A situation that involves little risk or cost
Relatable	Person possesses characteristics with which seeker can identify
Simple	Solution is straightforward
Subjective	No "right" answer - matter of opinions or feelings
Variation of opinion	Ability to access a wide array of opinions
Verifiable	Information in solution can be easily verified without implementing

The study also identified 6 characteristics that lead individuals to consult experts online, namely complexity, depth of experience, costliness, high stakes, and specialized knowledge.

Table 2. Expert situational characteristics as identified by Meservy et al. (2021)

Concept	Description
Complex	Solution is not straightforward or easily understood
Depth of experience	Degree to which the person has high exposure to and experience with the topic
Expensive	Solution requires significant investment to implement
High Stakes	A situation that involves high risk or cost
Specialized knowledge	Person possesses specialized training or background
Unverifiable	Information in solution cannot be easily verified without implementing

2.3. Rise of artificial intelligence and large language models

Although online forums remain a popular source of information, new technologies are now emerging that have the potential to revolutionize information seeking behavior. In particular, the rise of artificial intelligence is transforming the landscape of information retrieval and the decision-making processes (Merai, 2023). AI refers to the development of technology capable of performing tasks that would typically require human intelligence (Russell & Norvig, 2021). These systems are designed to learn from data, adapt from this learning, and make new intelligent decisions. Large language models (LLMs) such as ChatGPT, which are a subset of AI, have been in the forefront in recent years. LLMs are described as being unsupervised multitask learners capable of processing and generating human-like text. These models are trained on vast amounts of data and have the ability to understand and produce relevant language (Radford et al., 2018). Unlike traditional search processes that require the information seeker to locate and synthesize many disparate answers to a query, LLMs present a single potential result generated using diverse concepts and ideas from multiple sources. Although this technology is relatively new, individuals are increasingly relying on it as a source of information (Haleem et al., 2022).

Owing to their novelty, the effects of AI and LLMs on online information seeking behavior are relatively unknown. Because these models offer unique information retrieval and synthesis capabilities, it seems logical to assume that they could supplant, or, at minimum, supplement, traditional information search mechanisms such as general search engines or topic-specific online forums. However, when and why people might turn to LLMs versus human-based information sources such as online forums is an open research question. Building on prior research (Jensen et al., 2021; Meservy et al., 2021) and situation theory (Horstmann et al., 2018; Rauthmann et al., 2020) we postulate, that characteristics of the information seeking situation likely bear on the preference for turning to LLM models versus other sources. Using a quantitative survey, we first examine how situational characteristics identified in previous work influence people’s preference for LLMs versus human sources (i.e., peers and experts) on online forums. We then extend this body of work via an exploratory, qualitative study that identifies new dimensions associated with a preference for LLMs as a source of information.

3. Methods

We conducted a two-part study to answer our research question. First, we developed a survey instrument that employed the same situational characteristics identified by Meservy et al. (2021) as distinguishing between peer and expert preferences. This survey included both quantitative and open-ended questions to determine whether these same characteristics were related to a preference for ChatGPT as an information source. Second, based on analysis of this survey data, we engaged in further qualitative analysis of open-ended survey questions that asked participants about situations for which they would turn to ChatGPT as an information source. This analysis identified 7 characteristics that drive the selection of ChatGPT. We describe the data collection and analyses in more detail below.

We developed a survey instrument based on prior research (Meservy et al., 2021) that measured individual preferences for seeking information from peers and experts (such as would be accessible on online forums), or ChatGPT for specific situations. To identify a suitable participant pool, we first conducted a screening survey using a sample of general population adults in the United States (n = 419) to identify those who had recently used an online forum and/or ChatGPT in the last three months. The sample was provided by the panel company Prolific. Of the

419 participants, 299 (71.4%) replied that they had recently used both an online forum and ChatGPT.

Participants were then invited to complete the main survey. The survey presented 20 situations (shown in Table 3 and adapted from previous research (Jensen et al., 2021; Meservy et al., 2021)) and, for each one, asked participants *whether [they] would be more likely to seek advice from ChatGPT (an online AI model), an expert (a person with credentials or demonstrated expertise about the situation) or a peer (a person who is similar to you and may have some personal experience with the situation)*. Participants were also asked to specify *the primary characteristics of the situation that would lead them to seek advice from ChatGPT, an expert, or a peer*. These characteristics were the same characteristics identified in Meservy et al. (Meservy et al., 2021) and participants could select up to 3 characteristics for each situation.

The survey also included open-ended questions related to ChatGPT, including the following: (1) *When searching for information on online forums, what characteristics of the situation would lead you to rely on the input of ChatGPT instead of the input of peers or experts?* (2) *Provide a few examples of situations in which you would rely on the input of ChatGPT more than the input of experts or peers. Why?*

A total of 154 participants who reported that they had recently used online forums and ChatGPT completed the main survey.

4. Results

4.1. Quantitative analysis

From the first main survey described in section 3.1, we analyzed the data associated with the 20 presented situations, shown in Table 3, to see how often ChatGPT would be consulted as the primary information source. Of the 154 participants that completed the survey, seven did not provide information for this question and as such were excluded from the analysis. Table 3 shows the number of times, from the 147 participants, that a given source was consulted across all 20 situations.

Table 3. Source selection for experts, peers, and ChatGPT

Situation	Expert	Peer	ChatGPT
Selecting my fantasy football lineup	21	78	48
Choosing among car insurance providers	97	27	23

Situation	Expert	Peer	ChatGPT
Deciding on a travel destination	13	103	31
Determining my romantic capability with someone	14	122	11
Seeking advice on a diet/exercise plan	114	19	14
Trying to make sense of a current news event	48	46	53
Deciding whether to lease or purchase a vehicle	108	26	13
Deciding which credit card is best for me	118	14	15
Deciding who to vote for	48	80	19
Determining whether to do business with a certain company	100	37	10
Deciding on a career	85	48	14
Deciding to try a new restaurant	12	128	7
Determining whether to purchase a new personal computer or mobile phone	43	70	34
Seeking advice on how to get a good loan	121	14	12
Seeking financial advice	130	5	12
Determining whether a movie is worth seeing	8	127	12
Seeking relationship advice	24	116	7
Seeking advice on purchase a home	130	10	7
Selecting a college major	64	68	15
Determining whether to purchase a certain product	31	90	26
Total	1329	1228	383
Percent	45%	42%	13%

As shown in Table 3, for the situations presented, ChatGPT was selected as the primary

information source comparatively fewer times than experts as peers. Across the situations, ChatGPT was selected significantly less than peers ($p < .001$) and experts ($p < .001$) when doing paired t-tests, but experts and peers were not significantly chosen more than each other on average ($p = .80$). This pattern mirrors the results presented in Meservy et al. (2021). Interestingly, there was only one of the presented situations (trying to make sense of a current news event) for which ChatGPT (54) was selected more than both peers (46) and experts (48).

Because we were primarily interested in the characteristics of the situation that would lead to the selection of ChatGPT vs. peers and experts, we examined the characteristics most commonly cited when each of these three was selected as the primary information source. Within ChatGPT, the most commonly cited characteristics were situations that were objective, verifiable, and simple. For experts, the most commonly cited characteristics were specialized knowledge, deep knowledge, complex and expensive situations. For peers, personal experience, simple, high relatability, subjective, and commonly experienced were most cited. As expected, some of the characteristics were cited for multiple information sources.

To further probe distinguishing situational characteristic vectors for each information source, we conducted a k-means cluster analysis on the individual response data to explore whether (a) certain situational characteristics tended to be grouped together, and (b) whether these groupings tended to be associated with a preference for peers, experts, or ChatGPT. The elbow method (Kodinariya & Makwana, 2013) was used to guide our selection of the number of clusters that minimized the within-cluster sum of squares. Using the *fviz_nbclust* method of the *factoextra v1.0.7* package in R (Kassambara & Mundt, 2020) we extracted five clusters of grouped characteristics. Table 4 shows the cluster means for every characteristic for the five clusters. For ease of viewing, each mean greater than .2 is shaded.

Table 4. Cluster means

Cluster	1	2	3	4	5
Commonly experienced	1.00	0.00	0.02	0.00	0.05
Complex	0.09	0.09	0.18	0.25	0.03
Deep experience	0.04	0.05	0.24	0.16	0.02
Expensive	0.04	0.04	0.18	0.20	0.02
High bias	0.05	0.06	0.01	0.07	0.06
High relatability	0.23	0.21	0.04	0.16	0.07

Cluster	1	2	3	4	5
High stakes	0.03	0.03	0.17	0.12	0.02
High variety	0.08	0.07	0.03	0.12	0.05
Impersonal Experience	0.02	0.01	0.01	0.07	0.04
Inexpensive	0.02	0.03	0.01	0.05	0.31
Low bias	0.07	0.07	0.07	0.10	0.08
Low reliability	0.00	0.01	0.01	0.02	0.01
Low stakes	0.03	0.02	0.01	0.03	0.07
Low variety	0.01	0.00	0.00	0.02	0.01
Non specialized knowledge	0.02	0.02	0.00	0.02	0.03
Objective	0.05	0.04	0.19	0.20	0.11
Personal experience	0.36	1.00	0.06	0.00	0.06
Shallow experience	0.01	0.02	0.01	0.02	0.02
Simple	0.18	0.17	0.00	0.00	1.00
Specialized knowledge	0.08	0.01	1.00	0.00	0.03
Subjective	0.11	0.22	0.01	0.15	0.10
Uncommonly experienced	0.01	0.02	0.01	0.03	0.02
Unverifiable	0.01	0.02	0.02	0.03	0.04
Verifiable	0.10	0.12	0.12	0.21	0.19

These clusters illustrate that certain characteristics tend to occur together. Interestingly, in all but cluster 4, there is a single predominant characteristic that primarily defines the cluster. Table 5 describes each cluster using the most influential characteristics ordered by their influence.

Cluster	Description
1	Commonly Experienced, Personal Experience, High Relatability
2	Personal Experience, Subjective, High Relatability
3	Specialized Knowledge, Deep Experience
4	Complex, Objective, Verifiable, Expensive
5	Simple, Inexpensive

Next, we saved the designated cluster to each of the underlying participant-situation evaluations and then created a table to see clusters were most represented for experts, peers, and ChatGPT. Table 6 illustrates the percentage of participant-situation explained by each cluster for each information source. Individuals turn to experts because of their specialized knowledge and deep experience (cluster 3) and for situations that are complex and have objective and

verifiable solutions but may be expensive (cluster 4). Peers are sought out as information sources due to their personal experience and high relatability when the knowledge sought is subjective (cluster 2). Peers are also consulted in commonly experienced situations due to their personal experience and high relatability (cluster 1). Interestingly, similar to experts, there are situations that peers are also sought out for that are complex and have objective and verifiable solutions (cluster 4). By far, the most common situations that are used for ChatGPT are those that are complex and have objective, verifiable solutions (cluster 4). The second most common situations for ChatGPT are those that are simple and inexpensive (cluster 5).

The data presented in Table 6, which shows percentages of each cluster within each information source, offers insight into the situational characteristics at play when ChatGPT is chosen as an information source, but does not necessarily indicate why it might be chosen over peers and experts. Table 7 shifts this perspective to show the percentages of each information source within each cluster.

Table 6. Percentage of cluster characteristics for selections within each information source (columns total 100%)

Cluster	Expert	Peer	ChatGPT
1	10%	22%	11%
2	7%	40%	5%
3	47%	1%	11%
4	33%	24%	50%
5	3%	13%	23%

Table 7. Percentage of information source selection by cluster (rows total 100%)

Cluster	Expert	Peer	ChatGPT
1	29.2%	61.6%	9.2%
2	16.3%	80.4%	3.3%
3	91.7%	2.3%	6.0%
4	47.4%	31.5%	21.1%
5	12.6%	56.6%	30.8%
Total	45%	42%	13%

As shown in Table 7 (and consistent with the data shown in Table 3), ChatGPT was not chosen as the leading information source for any of the clusters, and was the least popular information source in all but cluster 5, where it surpassed experts but not peers. This prompts the question of whether other types of situations, not captured by the characteristics identified in prior research (Meservy et al., 2021), may prompt information seekers to choose ChatGPT as an information source. To address this question, we systematically evaluated the open-ended

questions to further understand the characteristics cited by participants as to why they consult ChatGPT as an information source.

4.2. Qualitative analysis of ChatGPT characteristics

We employed a systematic, qualitative approach to analyze the open-ended questions mentioned in section 3.1 related to the characteristics that led participants to use ChatGPT. Open coding began with a subset of the authors independently reading and isolating distinct concepts that were mentioned by participants. After generating independent codes for a sample of the data, two researchers met and discussed the codes and resolved and combined labels for concepts identified. Then, the researchers reviewed the coding and discussed possible nuances or distinctions in the codes. At this stage, after reviewing some of the examples, a distinction was made in one of the codes and that code was split into two separate codes. Table 8 contains the codes that emerged from this initial analysis.

Table 8. ChatGPT situational characteristics that emerged from the qualitative analysis

Concept	Description	Count
Short timeframe	A situation that the answer is desired in a short amount of time	33
General knowledge	A situation where the information is readily accessible	21
Generation	A situation where content, ideas, or an artifact is generated	16
Synthesis	A situation where data from multiple sources needs to be summarized	15
Rare knowledge	A situation where the information is not readily accessible	10
High-data	A situation where there is a lot of data or information needed	8
High social cost	A situation where seeking information may incur social costs or impact what others think of you	5

Next, two researchers independently coded ~25% of the dataset and then met and reconciled any

differences. They then proceeded to code the rest of the dataset and once again met to reconcile any differences with the intent to reach a high-level agreement on the characteristics assigned. Inter-rater reliability (Cohen’s Kappa) averaged .9868 across the seven characteristics.

Our findings revealed seven distinct characteristics: short timeframe, general knowledge, generation, synthesis, rare knowledge, high-data, and high social cost. In the following paragraphs, we describe each of these characteristics and provide sample participant responses exemplifying the characteristic (note that some responses were coded as representing more than one characteristic).

First, individuals consult ChatGPT in situations where the answer is desired in a short timeframe. For instance, imagine encountering a burst sprinkler line and needing to swiftly shut off the water, prompting a desire for a quick response. Sample responses:

“I use ChatGPT when I want an instant answer in which I don’t have to wait a peer or expert to [resolve] some question.”

“For me, ChatGPT is best when I need an answer fast. If I were to contact a peer or a professional, it would take time and not everyone is readily available at any time, but ChatGPT is (when the website isn’t down or very slow).”

ChatGPT was identified as a useful tool for general knowledge situations where the information required is readily accessible, such as historic facts or mathematical principles. Sample responses:

“It can provide straightforward answers to questions about historical events, scientific facts, mathematical concepts, definitions, or explanations of basic principles.”

“Non-subjective or factual information: ChatGPT can be useful when seeking objective and factual information that does not rely on personal experiences or subjective opinions.”

Generation relates to situations where the participant wants to generate content, ideas, or an artifact. Writing an essay, a poem, or a song are examples of situations that generate content. Sample responses:

“Creative or imaginative ideas: If you’re looking for creative ideas, brainstorming assistance, or out-of-the-box thinking, ChatGPT can generate unique suggestions.”

“When I’m looking from creativity with some input of certain initial conditions or variants.”

Participants also cited using ChatGPT when they had to synthesize large quantities of information. For example, imagine deciding what to do in a city you haven’t visited—instead of visiting multiple food and

vacation websites, users sought a consolidated and easy-to-follow schedule. Sample responses:

"I would rely on ChatGPT when I need certain topics to be explained or summarized for me, for example when i was searching about some diseases related to blood, I find that chatGPT is better summarizing than my teachers for example."

"When I need a summary of different sources for a very specific topic, for example the most beautiful beaches in Mexico, the best city to live in Mexico."

In contrast to general knowledge, there were situations where rare knowledge was sought. For instance, to resolve a malfunctioning custom speaker system, one may not find the exact answer to the problem with a conventional online search. ChatGPT can provide valuable information in helping to address infrequent problems where knowledge may not be as common, saving users from hours of fruitless internet searching. Sample responses:

"ChatGPT is more useful [for] questions that are more specific, and less likely to be answered in a forum. When I have an error or problem that no one knows how to solve."

"When it's some difficult topic and there is not much information, when there is not a lot of experts or peers that have information about it."

Some favored ChatGPT for high-data situations that demand extensive information to deliver a comprehensive solution. Sample responses:

"The amount of information ChatGPT can gather would be one of the main reasons I would trust in this source."

"When i need a lot of information about a specific topic."

Finally, high social cost pertains to situations where individuals prefer not to burden others or use their personal connections or social capital to obtain answers. For example, if you wanted assistance editing an email but you didn't want to inconvenience your coworker. Sample response:

"Mostly when I need the information quickly and when I want to do a lot of follow up questions to refine the information i am getting without fear of upsetting someone."

"When I know that ChatGPT is the most efficient way to do it, and is anonymous, and i don't look dumb asking simple questions."

In summary, the seven new situational characteristics revealed by our qualitative analysis suggest that the preference for ChatGPT over peers and experts may be driven by a unique set of circumstances that warrant further scholarly investigation.

In addition to these seven new situational characteristics that were mentioned several times,

there were other interesting observations included in the open-ended responses but that were mentioned less frequently. For example, a couple participants mentioned the idea of going to ChatGPT when they had topics that were about socially sensitive topics that may not be acceptable to discuss openly.

Interestingly, a few commented more generally about the process rather than characteristics of the situation. For example, some suggested that they consulted ChatGPT only after they had already consulted peers or experts. Sample response:

"I would rely on ChatGPT in specific situations where information is hard to come by and any other source is exhausted."

Multiple participants suggested that interacting with ChatGPT was helpful when they didn't really know what question to ask. Sample response:

"When I don't really know how to formulate the question, ChatGPT helps me with it."

Sadly, a couple participants mentioned that they use ChatGPT because they don't have any friends or, at times, don't have access to peers or experts to get information from. Sample responses:

"When I have no access to anyone else who can provide [me] with information or when I need the information asap."

"When peers are not available and an expert opinion is not required."

The open-ended responses also included specific situations where participants often consulted ChatGPT. Some of the most frequent scenarios included writing or evaluating code, math and stats questions, and getting help for school-related work.

5. Discussion

Individuals have long relied on information from other sources for accurate, reliable decision making. This information is often sought on digital platforms such as forums where experts and peers collaborate by answering each other's questions and searching for exchanges between others with similar questions. Prior research (e.g., Jensen et al., 2021; Meservy et al., 2021) has explored individuals' preference for seeking expert or peer input and has revealed that situational characteristics of the inquiry influence individuals' choice of source.

The introduction of AI and LLMs such as ChatGPT has expanded the sources of information available to individuals. Therefore, we sought to understand what situational characteristics lead information seekers to use ChatGPT and how these characteristics compare with characteristics that lead to human peer or expert input such as that found on forums. Using a multi-stage study and quantitative and qualitative analyses, we shed light on the process individuals use to select ChatGPT

as their information source. Below, we review our main findings and discuss their implications.

First, our findings reveal that ChatGPT does not yet appear to be a common information source compared to human expert and peer input on online forums. We used situations identical to past work on expert and peer source selection and asked participants to select their preferred source (Meservy et al., 2021). However, ChatGPT was the preferred option for only one of the 20 situations that participants evaluated: trying to make sense of a current news event. Even in this scenario, preference for peer and expert input was only slightly behind that of ChatGPT.

The lower preference for ChatGPT has several potential explanations. Despite its intense media coverage, LLMs such as ChatGPT are novel technologies. Many have heard about or experimented with ChatGPT's capabilities and limitations, but the technology is still in the early stages of adoption by the public and still unfamiliar to participants. Many are just starting to formulate what they will use it for and where they find it helpful. Another explanation is that the situations we used are well suited for human input, but poorly suited for using ChatGPT. Regardless, for the situations we tested in our study, human peers and experts remained the preferred source of information. Furthermore, the preference for human peers and experts was robust with substantial differences in the number of individuals favoring human vs. ChatGPT sources. The extent and durability of this preference through time deserves additional research attention.

Some might expect ChatGPT to combine the capabilities of experts and peers. For example, one participant commented *ChatGPT combines the characteristics of an expert and that of the peers together*. Indeed, inspection of situational characteristics for which individuals might seek out ChatGPT input revealed some significant overlap with situational characteristics associated with peer and expert information seeking. But there was little overlap between the characteristics for which individuals might seek out peer or expert input. For example, in the cluster analysis, although it appears that the combination of characteristics represented by cluster 4 is most commonly associated with choosing ChatGPT as an information source, this cluster is also the second most common cluster for both peers and experts. Moreover, the most influential characteristics in the clusters most associated with ChatGPT (clusters 4 and 5), complex and simple, are seemingly opposite; yet, in both cases, most of the situation evaluations cited the characteristics in these clusters. These findings indicate that ChatGPT is unlikely to completely supplant expert or peer input. More likely is the potential for ChatGPT to replace peer and expert input in specific situations. In other words, generally, the situational characteristics that drove individuals to seek expert or peer input are different for ChatGPT. However, it is also important to note that the

scenarios used in this and past research may be more suited to human information sources. Thus, future research should also examine commonly cited scenarios where ChatGPT is often selected as the information source as it is clearly being used by some information seekers.

Another significant contribution of this research is the exploratory list of situational characteristics individuals reported that induced their preference for ChatGPT input during their information search. These characteristics are mostly distinct from expert or peer characteristics and include factors such as time, cost, and capabilities (e.g., generation, synthesis), though there was some mention of peer characteristics in the open-ended responses. Considering these characteristics, scenarios where ChatGPT would be the preferred information source could be writing a formal report for my job (Short timeframe, Synthesis), identifying errors in code (Rare knowledge, High-data), or overcoming an embarrassing habit (High social cost). Future research should systematically examine and validate these characteristics and add to their number to ensure a complete characteristic set that induces people to turn to ChatGPT for information.

Although this research adopted a systematic, multi-method approach for identifying situational characteristics that influence the preference for human (peer & expert) sources versus AI sources, the study has limitations that should be considered. First, our focus was limited to how situational factors influence information source preference, but other factors (e.g., characteristics of the information seeker) may also play a role. Additionally, our sample comprised participants from the U.S.; additional research should examine whether the factors we elicited hold for other populations. Finally, our study relied on self-reporting on hypothetical information seeking scenarios. We encourage future studies to examine *in situ* use of AI tools for information seeking.

6. References

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