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Published in:
Journal of Information Science

DOI:
[10.1177/01655515231193847](https://doi.org/10.1177/01655515231193847)

Published: 01/01/2023

Document Version
Final published version

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Please cite the original version:
Karim, M., & Widén, G. (2023). Strategies for information source selection: A focus group study on young people in Europe. *Journal of Information Science*. <https://doi.org/10.1177/01655515231193847>

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Strategies for information source selection: A focus group study on young people in Europe

Journal of Information Science

1–14

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DOI: 10.1177/01655515231193847

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Abstract

The article presents findings from a study that examined how young people select, consult and evaluate multiple information sources to validate the information they seek. It contributes to the field of information behaviour and helps in designing better information services. Eight focus group interviews were carried out in four different locations across Europe. A total of 37 young people participated through purposive sampling. The study illustrates participants' complex information pathways through which they consult multiple sources to reach the most trusted information source. The content analysis of the data showed that ascribed cognitive authority and affective factors such as confidentiality, privacy and empathy strongly determine the selection of an information source. The study observes the young participants' dependency on networked and human sources for ease of access and reluctance to rely on mainstream media and textual information. The study has strong practical implications for designing information services and developing communication materials targeted at young people.

Keywords

Affective authority; cognitive authority; focus group; information source selection; information triangulation; young people

1. Introduction

The contemporary information society and complex information landscape of the 21st century have fundamentally transformed the process of obtaining and assessing information, and the phenomena are most certainly true for young people. Information seeking is more complex and deeply heterogeneous than ever before due to the pervasive presence of information technology and the Internet [1–5]. Today, a growing number of sources and channels are competing for attention, where 'media has become our window on the world and their power consists in creating frames of our perception' [6, p. 109], and social media is one of the most important news sources [7,8] as well as a place for peer socialisation (e.g. Balleys et al. [9]) and support. However, it comes with challenges in terms of finding reliable information among contradictory information and even misinformation, causing a serious social problem especially for the younger section of the population [10–12], as they are still developing their metacognitive skills, which are needed for critical information evaluation and for managing huge amounts of information [13]. You could even say that there is a paradox in young people's information landscape as they are agile media consumers, having access to endless amounts of information for their decision-making, but it comes with challenges that can lead even to information poverty if not managed wisely [14].

To address this challenge, it is crucial to closely understand how young people select and assess various information sources while navigating this complex information landscape [4,15]. There is a growing body of research showing that youth's access to information is related to their social participation and well-being (e.g. Balleys et al. [9] and Agosto

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[15]); therefore, there is a need for empirical studies looking into how young people select and assess information sources to find reliable information.

The overall objective of this article is to understand how young people collect information for their everyday life, specifically through focusing on young people's information source selection and assessment criteria. The specific research questions are as follows:

1. How do young people select and assess information sources in an everyday-life context?
2. What kinds of criteria do they use in their information source selection and assessment processes?

To answer the research questions, the article reports on the information source selection and assessment practices of young people between 15 and 29 using a qualitative approach. The study adopted the Commonwealth's definition of youth – the Commonwealth Youth Programme considers the population between the age of 15 and 29 as young people. The study follows a qualitative method of data collection, and focus group interviews were carried out to capture an in-depth understanding of the subjects' collective information source selection and assessment process [16–18]. Primary data were collected through eight focus group interviews in four different European countries. A total of 37 young people participated in the in-depth discussion, where they elaborated upon their everyday-life information-seeking practices and their usual ways of selecting and assessing information sources. The focus group study was a part of a larger project, the Erasmus + project titled DesYIgn: Innovative Youth Information Design and Outreach (2019–2021). The project aimed to study how to better design information and counselling services for the young population in Europe. The project was coordinated by the European Youth Information and Counselling Agency (ERYICA).

The article is structured as follows. As background to the actual focus group study, the literature review presents previous research on young people's contemporary information landscape and their information source selection practices and credibility assessment strategies. The focus group study is then explained and the results of the study presented. Finally, the results are discussed in relation to previous research as well as the contributions and limitations of the study. The article contributes with knowledge on young people's information-seeking behaviour, which is important for designing better information services and communication materials targeted to the young population.

2. Literature review

The literature review presents previous research on how young people navigate the complex information landscape in terms of information source selection strategies and criteria, and how they assess the trust and reliability of the information sources they turn to. This will provide important background for the empirical study focusing on young people's information source selection and assessment process in everyday life.

2.1. Source selection strategies

Young people are generally confident in their own information-seeking strategies, and they are aware of reliability and quality issues regarding information on the web [19]. However, although aware of the reliability and quality issues, the increasing amount of information available, where the risk for mis- and disinformation is high, has led to young people struggling in finding reliable criteria when selecting relevant information sources [19–23]. This adds to the complexity of young people's information source selection process as it both creates opportunities to meet their diverse information needs [24,25] and increases the risk of basing their actions on biased or filtered information [26].

While the information landscape is complex, bringing forward almost endless alternatives of information sources, it is natural that young people often turn to several information sources that they perceive as appropriate while seeking information, both human and nonhuman [27–29]. These sources can be classified into networked sources, such as e-mail, mailing lists and the web; human sources, such as colleagues, experts, friends and acquaintances; broadcast sources, such as radio and television; printed media, such as newspapers, magazines, newsletters, local leaflets and books; organisational sources, such as health centres and public libraries; and other sources, which include miscellaneous sources such as regulations issued by public authorities [30].

Turning to multiple sources often also include a strategy of comparing the sources while moving from one information source to another until reaching an acceptable conclusion [28]. This practice of collecting information from multiple sources to finally reach an acceptable level of what is deemed to be the accuracy of the information is termed an *information pathway* by Savolainen [17]. Greyson [31] proposes a similar concept, *information triangulation*, when gradually moving from general to specific and more trusted sources. In this process, the different information sources often require

different source selection criteria. Common selection criteria include content reliability and quality, language, availability, accessibility, easiness of use, time-saving, and usability [17,22,27,29,32–36].

The quickly changing information environment is constantly challenging our source selection strategies as the types of information sources are growing, and the creation, dissemination and consumption of mis- and disinformation are increasing [37]. Among young people, *expertise* and *reputation* (see further section 2.2.) are becoming the most relevant criteria to attribute source credibility, placing teachers, parents and other trusted adults as important information sources for young people (e.g. Almeida et al. [20], Nygård et al. [38] and Bowler et al. [39]).

2.2. Trust in information sources

Young people are responsive to attitudes, social norms and emotional states, affecting their information source preferences (e.g. Lindström [26] and Nygård et al.[38]). Also, today's user-generated information sources (e.g. social media platforms) put special emphasis on reliability judgements that are constructed in an interactive process where several criteria are used to judge whether a source or a person is reliable or trustworthy. In this context *cognitive authority* is a useful framework while it describes an ongoing, social process and refers to the extent to which users perceive information as trustworthy. Cognitive authority is a concept about 'the extent to which users think they can trust the information' [40]. This definition suggests that the cognitive authority and the credibility of information sources are closely related [40,41]. Similarly, Lankes [42] proposed social endorsement as an information source credibility assessment criterion, and Chatman [43] found that low-skilled workers placed greatest faith in the human sources available in their immediate social milieu, drawing on Wilson's [44] ideas of cognitive authority. Cognitive authority departs from the assumption that people know the world in two major ways: either based on their firsthand experiences of the everyday world or on what they have learned secondhand from others. However, only those who are deemed to be individuals who 'know something we do not know' and who 'know what they are talking about' are recognised as cognitive authorities, at least to some degree [44, pp. 10, 13–14]. This is because they are thought to be intrinsically plausible, convincing and persuasive and thus credible and worthy of belief. They are also perceived to be potentially able to influence one's thinking in a specific sphere of interest. According to Wilson [44, pp. 10, 13–14], cognitive authorities are individuals who possess unique knowledge or expertise, making them plausible, convincing, persuasive, and ultimately credible and worthy of belief. They have the potential to influence thinking within a specific domain of interest. Cognitive authority is not confined to individuals only; this authority can also be recognised in institutions such as university libraries and information sources including quality newspapers and websites. Rieh and Belkin [40,41] found that information quality assessment is based on source credibility, with considerable preference for institutional authorities and academic and governmental institutions [40, p. 288].

Recent studies have shown that cognitive authority is highly relevant in young people's source selection strategies. Mansour and Francke [45] show in their study that the main reason one distrusts information on Facebook is because it is shared by unknown persons. Familiarity, affection, privacy and trust are important criteria for information source assessment [46]. This means that social processes are important for credibility assessment in sources with user-generated content. In addition, people develop cultural tools to assess credibility in social media, such as language use, writing style, expertise and life experience. Experience-based information is perceived as reliable, and information confirming one's views is also deemed important [46]. A recent study by Multas and Hirvonen [47] shows how young video bloggers create and construct their credibility through ensuring the blog content's trustworthiness, authenticity and genuineness. This shows how aware these young video bloggers are about the importance of cognitive authority and how it is constructed. Haider and Sundin [48] further show that in the digital environment, young people develop different information assessment practices in which trust, mistrust and distrust in content, infrastructure, algorithms and institutions play an important role in deciding on what to believe or not. Depending on the significance of the questions needing answers, the attitudes towards cognitive authority, for example, established newspaper columnists, may vary.

Moreover, the *emotional dimension of credibility assessment* becomes important to include in the overall understanding of these processes [49]. Neal and McKenzie [50] proposed the concept of affective authority, the degree to which users perceive the information source as fitting, understanding, emotionally supportive and aesthetically pleasing. To ascribe affective authority, social context plays a vital role, and the information sources of the seeker's context are more personal and, thus, more emotionally supportive. Second, people consider shared experiences as a factor in a source's affective and cognitive authority. Finally, the aesthetic elements influence the perception of affective authority as users prefer sources that are described as being elegantly expressed. During the coronavirus 2019 (COVID-19) pandemic, affective elements in source assessment stood out as significant while other criteria were not available, and the information seeking was often connected to strong emotions [51]. Affective authority was even used as a strategy to share fake news about COVID-19 while people were seeking for information in an emotional state of mind [52]. These are

important insights and affective selection criteria are probably often also present in young people's information-seeking activities.

3. Research methods

The research applies a qualitative approach, which is motivated when delving into greater detail in the study of human behaviour. Qualitative methods such as one-on-one interviews, group interviews and focus group interviews emphasise an interpretive approach to pose and resolve research questions, describe, and illuminate the context and condition under which research is conducted, and separates researcher from prior commitment to theoretical constructs or hypotheses formulated before collecting data [16–18,53]. Among various qualitative studies, a focus group study entails a technique of in-depth group interviews where participants are selected from the purposive sampling of a specific population, who would have something to say on the topic, are within the designated age range, have similar socio-characteristics and would be comfortable talking to the interviewer and each other [53]. Thus, the focus group approach was deemed appropriate for the topic in question, and the study collected primary data from the population that is the subject of the study: young people. The data collection technique and the purposive sampling made it possible to construct a setting for the respondents where they would be surrounded by people of similar demographics, which facilitated the observation of their behaviour in a social setting to help gain a deeper understanding of the respondents' behaviours. The study conducted eight focus group interviews, which were carried out in Luxembourg, Malta, Spain and Wales by the respective youth information and counselling agencies between July and August 2020. The youth development agencies from these countries participated in the project which allowed us to carry out the focus group studies in these locations.

3.1. Data collection

The data used in the study are part of the Erasmus + research project titled DesYIgn: Innovative Youth Information Design and Outreach (2019–2021). The research collected empirical data through semistructured focus group interviews. The interview questions and the instruction for execution were designed by the authors and vetted by two other academic experts and the project team. The primary section of the questions inquired about the socio-demographic specifications of the participants, which included age, gender, education, living area and employment status. The second section of the questions inquired about the following:

- The participants' preferred sources of information: In the discussion, the participants were asked from where they receive necessary information related to their everyday lives.
- Why those sources are preferred: The discussion entailed participants' reasonings for preferring the mentioned sources and in what ways those sources are more convenient for them compared with other possible sources.
- How the participants assess the sources' authenticity, and what drives them to use those information sources: The discussion allowed the participants to explain how they assess the authenticity of the information they collect from their preferred sources, how confident they are about the accuracy and how they further validate the sought information.

The focus group interviews were held in eight different locations in four different countries in Europe and carried out by their respective youth information and counselling agencies of those locations. The project collected empirical data through the above-mentioned semistructured focus group interviews to design the next phases of the project. The focus group interviews followed Rabiee's [53] guide to initiate, prepare, execute and analyse the focus group interviews. A total of eight focus group interviews were carried out, and each of the groups had six to eight respondents. Due to the nature of the study, purposive sampling was used to involve participants between 15 and 29 years of age. The first invitation for the interview was sent out 10 days prior to the interview by the youth work agencies of the respective locations. Complying with the guideline of Finnish National Board on Research Integrity-Tutkimuseettinen neuvottelukunta TENK [54], an interview consent form was filled and signed by each of the participants following the research's ethical guidelines. Since the participants were not of any individual vulnerable population, no further approval of ethical guidance was necessary. The confidentiality and anonymity of the participants were promised and maintained in the research. Therefore, the personal information of the participants was not included in the article, and their names were not added to the text.

The entire endeavour of circulating instructions, conducting a pilot study, updating the instructions and carrying out the final interviews took place between May and August 2020. Prior to the interviews, the youth agencies received instructions on the recruitment of the respondents, group size, duration, invitation protocols, suitable venues, conducting

the interview sessions and reporting. The first invitation for the interview was sent out 10 days prior to the interview by the youth work agencies of the respective locations. A letter of consent was signed by each of the participants.

The interviews were held at the youth work offices and were carried out by one moderator and one assistant moderator for each group. While the moderator facilitated the entire session and ensured equal participation, the assistant moderator was responsible for collecting field notes and personal reflective notes, which were used as data in the analysis. The interview sessions took around 1.5 h each and allowed all the participants to contribute with their own views and thoughts about the topic. Altogether, the total interviewing time span was 12 h. For the convenience of the participants, the interviews were executed in the local language of the respective countries. The interviews were recorded, and the moderators translated the dialogue. At the beginning of each session, the moderators explained to the participants the aim of the study. Other than light refreshment, no other form of incentive was provided to the participants.

3.2. Population and sampling

The purposively sampled 37 young people were from Luxembourg, Malta, Spain and Wales (see Table 1 below). Altogether were 21 females and 16 males participating in the focus group interviews. The ages of the participants ranged from 15 to 29, with an average age of 19. While 22 of them were students, the rest were employed in full-time occupations. Out of the 37 respondents, 23 were from large cities, 13 from small towns and one from a medium-sized city. More than half of the participants were students, 11 participants were working and four of the participants were staying at home.

3.3. Data analysis

A qualitative narrative analysis approach [53] was utilised in analysing the transcribed data collected from the focus group interviews, which eventually allowed the major themes to emerge. Narrative analysis enables the researcher to uncover the experiences, perspectives and motivations of the participants, providing insights into their attitudes, beliefs and behaviours. It is particularly useful for exploring sensitive or complex topics as participants may be more willing to share their experiences through storytelling.

The collected data were analysed manually with an inductive and interpretive approach in connection to the research questions. To analyse the data collected, the following steps were carried out:

1. **Transcription:** The experienced youth workers who played the roles of moderators and assistant moderator translated and transcribed the interviews, which allowed a more systematic analysis of the data
2. **Coding:** The next step was to code the data to identify the key themes and patterns. In the study, the central questions guided the coding, and the major themes evolved around the participants' preferred information sources, their reasonings and their process of validating the information.
3. **Interpretation:** The final step was to interpret the replies of the participants to answer the central questions of the interviews. The answers were interpreted to discover the meaning behind the narratives and the context in which they were shared, considering factors such as the participant's experiences, beliefs and motivations.

The data were analysed by the first author of the article and further evaluated by the second author. The analysis was done by identifying the trends and practises of the young people while seeking everyday information, choosing different information sources and assessing them to locate the most suitable source for the information sought. Many of the themes revolved around concepts familiar to those conducting research in the field of information-seeking behaviour, such as information sources, information authority and credibility and the information search process and sense-making.

4. Findings

The analysis of the interview data revealed several major themes that shed light on the information source selection process among young people. However, it is important to note that as this study adopts a qualitative research approach, generalisability should be approached at the level of conceptual work rather than assuming broad applicability to all young people. The findings provide valuable insights into the experiences and perspectives of the participants within the specific context of this study. The major themes that emerged from the analysis of the interview data can be grouped into three areas of information source selection process:

- *Information source preferences in everyday life*: This describes the motivation for selecting various information sources in relation to the context and nature of the information sought.
- *Information-seeking pathway and information triangulation*: This describes the way young people interact with multiple information sources to reach to an acceptable level of authenticity of the information sought.
- *Information source selection criteria and cognitive and affective authority*: This describes how young people select information sources based on perceived reliability and allow the confidentiality and sensitivity of information to determine the appropriate information source.

4.1. Young people's information source preference in everyday life

4.1.1. *Dependency and ease of use of networked sources*. The study shows that the young participants are more inclined to interact with the Internet and online sources for collecting information over other sources. For example, one of the participants said, '*First reference point will always be Google and other reliable websites, then perhaps asking friends and peers*'. This indicates that the ease of access to information, speed and convenience largely encourage the young people to use networked sources. Along with that, their own digital competences make the Internet and other digital devices easy to use. The youth can use Internet-based applications, websites and instant communicators using their mobile phones, tablets or laptops. Thus, the ease of access and their digital proficiency influence their heavy use of online tools for information. As one of the participants expressed, '*First I inform myself on websites, and then I inform myself through different structures that can give me information I'm looking for*'.

4.1.2. *Dependency on human source for more delicate information seeking*. The interviews revealed that in contexts where information is comparatively less sensitive, young people prefer quick access to information. In such contexts, young people lean more towards networked sources, primarily online sources. Alternatively, they seemed to prefer human sources in more delicate contexts. When the information serves as guidance and they need help and support for assurance, human sources were preferred by the young people. Should the information require elaborated discussion, the young people preferred a more direct human interaction. As one of the participants expressed, '*It's easier to walk in than be kept on hold on the phone. Face to face is preferred to me. It feels more comfortable*', supported by another, '*Face to face feels like they actually want to help you*'.

4.1.3. *Lesser interest in considering mainstream media as an information source*. Major broadcast sources of information such as the mass media of television and radio were rarely mentioned by the young people as information sources. Specific questions such as, 'How do you want to collect information?' and 'Which could be appropriate channels for making information available?' did not in fact elicit the mention of television or radio. In a few cases, the respondents mentioned television as a source of receiving promotional information about products and services. The broadcast sources of television and radio were mostly for entertainment and collecting promotional information. Thus, the participants did consider either of them as their primary source of information.

4.1.4. *Reluctance related to books, libraries and textual information*. In this study, printed documents, particularly books, were considered a secondary choice as a source for everyday-life-orienting information. When asked about the pathway of their information-seeking process, a participant placed it as '*(1) Asking family and friends and (2) Searching online media and through books*'. In addition, the participants were asked if the format of information (textual, audio, audiovisual) plays a role in determining a potential information source. While the majority of the participants chose audiovisual, some preferred text for more necessary information. One of the participants argued, '*[I prefer] Text, so I can go over it and re-read it*', which was supported by another: '*Text format through magazines, newsletters, websites with images and produce videos of the activities*'. The findings are summarised in Table 1 below.

Table 1. Information-seeking practices.

Major findings	Details
Information-seeking practices	<ul style="list-style-type: none"> • Dependency on networked and human sources, ease of access, availability and speed determine the information sources. • Dependency on human sources for more delicate information seeking. The privacy, confidentiality and sensitivity of information determine the information sources. • Lesser interest in mainstream media due to lack of trust and interactivity. • Reluctance regarding books and libraries but a preference towards interactive textual information. • Trust in organisational sources that are more youth centric, such as schools and youth work agencies. • Higher perceived self-efficacy in information seeking yet encounters various difficulties.

4.2. Information-seeking pathway and triangulation

It was observed that the participants use a complex information pathway and triangulation process to collect reliable information according to their necessity. In most of the cases, the respondents mentioned two to three information sources, and they complemented each other. As mentioned by one of the participants: ‘First reference point will always be Google and other reliable websites, then perhaps asking friends and peers’, indicating at least two information sources, the first one a networked source and the other a human source. Particularly, when the sought information is comparatively less significant in nature, the most conveniently accessible information source is placed at the beginning of the information pathway or the information triangulation process. In this case, the networked sources were found to be the most popular information source to begin the information-seeking process. However, as the significance of the sought information rises, the information pathway and the triangulation process can alter. For example, a respondent shared, ‘I prefer asking relevant professionals, depending on their relevant area of study, then look for further information online using reliable websites and then go asking friends and relatives’. On these occasions, the respondents showed a pathway that begins with organisational sources and moves to human sources. It was noticed that when seeking more sensitive information that has greater implications, the respondents begin the information triangulation from a more authoritative information source and gradually move towards human sources. In these changes, the criteria of selecting information sources move between rational and emotional factors.

Alternatively, on some occasions, the respondents shared that networked sources are not always the right starting point for some activities. For instance, one shared, ‘I didn’t find any information about volunteering on Google’, while another explained, ‘There were flyers in high school and college, and you could take a slip. That was easy’. It was understood that due to the sensitivity or confidentiality of the sought information, the information pathway and the triangulation process may shift. In such cases, the information pathway or the triangulation process may move from an information source that provides an expert opinion to an information source that provides nonexpert information. This happens when the information is sensitive in nature, and as a young individual, the seeker hesitates to collect such information from sources that may not protect confidentiality. In these contexts, although the official service is a more authentic information source, the respondent would prefer to move to a less authentic source because of its confidentiality. The findings are summarised in Table 2 below.

Table 2. Information pathway and triangulation.

Major findings	Details
Information pathway and triangulation	<ul style="list-style-type: none"> • Participants used multiple information sources and use the triangulation process to assess the information. • When significance is low, easy access and speed determine the sources. • When the information is sensitive, privacy, confidentiality and comfort are determining criteria for selecting information sources.

4.3. Information source assessment criteria and cognitive and affective authority

The major features that emerged from the interviews as criteria for information source selection can be grouped as reliability of information, openness, expertise, trust, human contact, easy access, youth centricity, clarity of information, contemporary in taste, empathy and quickness. The respondents seemed to value availability and accessibility over other criteria. The speed and accessibility of information are significant constructs in determining information sources. In addition to the conventional criteria for information source selection, the respondents pointed out some unique affective factors. The study particularly found the sensitivity and confidentiality of information, openness, empathy and trust as strong determinants of young people's information source selection criteria, which has been termed 'affective authority' [50]. The study finds that ascribing authority and trust to an information source is not all based on rational calculations of the six facets only and that sometimes emotions determine the selections over expertise as a factor. This indicates the presence of affective factors while ascribing cognitive authority to an information source. The study finds cognitive authority and affective authority to be ascribed simultaneously in the process of assessing an information source. For example, one of the respondents stressed, *'You could go on a drug users forum, it's anonymous and there's no reason for people to lie. You may be paranoid to talk about drugs to an official service'*. Here, the participant is seen relying on unknown individuals and their personal experiences over an authoritative source because of the emotional supportiveness of the information source, in this case, the user forum. Moreover, people consider shared experiences as a factor while ascribing affective and cognitive authority to a source.

Thus, when the significance and the sensitivity of the information rise, the confidentiality of information and openness, empathy and trust carry a different weight for the youth while deciding on a potential information source. This strongly reflects the social context in the process of information seeking, where affective criteria such as openness, empathy and trust comprise the cognitive authority that is ascribed to a potential information source. Thus, information regarding uncomfortable issues, such as unwanted pregnancy, sexual health, use of drugs and so on, is often obtained from channels which provide higher levels of confidentiality, openness, empathy and trust – such as sharing a personal problem with a friend to acquire information to solve it. In these cases, the preferred information source is endorsed with cognitive authority although the source is not an expert. This was observed multiple times when the participants expressed discomfort and preferred indirect and discrete sources for such information. For example, one of the participants shared, *'I feel like a lot of people in our generation (me included) don't trust professionals. You could go on a drug users forum, it's anonymous, and there's no reason for people to lie. You may be paranoid to talk about drugs to an official service'*. However, the opposite was observed, too. For instance, for information regarding an intense health issue, a participant explained that you need to *'...get some help because you are pregnant and don't want anyone to know'*, *'You can't just google "I'm 15 and pregnant, what do I do now?"'* and preferred to turn to a more reliable source of information such as a doctor or a youth work agency. Either way, the sensitivity of the information and the societal context are vital determinants of the cognitive and affective authority ascribed to an information source.

Moreover, cognitive authority and affective authority are also ascribed by the appearance of the information container, particularly in networked sources. The aesthetic elements influence the perception of affective authority. A participant commented, *'Personally, I trust a bare bones website. If you're on a cheap looking website it seems that someone just does this in their own time, they have an interest and want to share it, no alternative motive. If it's a corporation making money, I question what's the ideology behind it'*. Yet, the appearance of authority, scholarliness and officialness are important features for ascribing cognitive/affective authority, particularly in networked sources. The findings are summarised in Table 3 below.

Table 3. Cognitive authority/affective authority.

Major findings	Details
Cognitive authority	<ul style="list-style-type: none"> • Due to the novelty or complexity of information, assessment is done by judging the appearance and presentation of the information. • While seeking more delicate information, cognitive authority/affective authority is ascribed to sources who are either experts, will maintain confidentiality or are comfortable to disclose the information to. • Thus, cognitive authority/affective authority can be ascribed to both expert and nonexpert information sources.

5. Discussion

The increasing amount of information available, and the variety of different information sources, has made it difficult for young people to manage quality assessment and to find reliable criteria when selecting relevant information sources [19–23]. You could even say that there is a paradox in young people's information landscape. While they are confident media consumers, having access to large amounts of information for their decision-making, it comes with challenges that can even lead to information poverty if not managed wisely [14]. Therefore, it is essential to explore how young people select information sources, how they interact with multiple sources, and what criteria they use to select and assess information sources, which was the purpose of this study. The study was conducted in four European countries, but this is not a general representation of how young people in Europe navigate their information landscapes, but rather brings insights important for future research and youth information counselling.

5.1. *The networked and interactive youth*

In this study, it appeared that the participants use the Internet and mobile technology on a regular basis, which comprises a large part of their media-consuming habit. Hence, in the context of information seeking, the young people were seen as more accustomed to using networked sources in their everyday lives. The everyday information-seeking practices largely involve staying connected on the Internet and using social media and search engines for seeking information. The quick lookup practice matches the finding of the study by Bowler et al. [39]. However, when the information is delicate in nature, human sources were also equally valued by the young people. Human sources such as parents, siblings, friends and teachers were considered trusted human information sources. The study confirmed the growing inclination of young people towards networked sources, which is supported by previous studies [1,2,4]. However, the study also confirms the dependency of young people on human sources as significance rises, and both human and networked sources are used in a complementary manner.

Interactivity seemed important to the young people and information sources that are not interactive in nature were used or consulted much less. Therefore, mass media, books and libraries were not considered to be easy-access information sources. The reason could be the inconvenience in terms of searching for information quickly. It could also be explained by the declining reading habit of young people, or that the young people do not consider reading books or going to the library as a distinct information-seeking activity. However, a textual form of information was preferred when the information needed to be preserved for future use. In addition, textual information sources such as magazines, flyers and newsletters were mentioned as potential sources for information. Moreover, the young people were keen to have interactive textual information where they are allowed to participate, too, the addition of QR codes was mentioned as important in printed media so that they can use their mobile phones to browse the associated website. The findings indicate that the young people are more comfortable consuming information from more graphical layouts that do not include too much text as well as having the option to connect with the source virtually. The study confirms previous findings regarding common source selection criteria such as accessibility, easiness of use, availability and time-saving [32–36], but highlights the focus on interactivity as an important criterion when choosing information sources.

5.2. *Sophisticated information triangulation*

The information seeking of the young people is not linear, and they use information pathway or information triangulation to consult multiple information sources. The triangulation of information is a deliberate and sophisticated practice largely attributed to researchers. However, although less well documented, laypeople also engage in practices that involve eliciting data from multiple sources, in multiple ways or from multiple perspectives and comparing or combining them to best make sense of the information obtained. In this way, information seeking, assessment and sense-making intermingle in a complex practice of information triangulation [17,31,40,55]. This study showed strongly how young people use a complex information pathway and triangulation to obtain reliable information. However, among the study participants, the most conveniently accessible information sources initiate the information source selection process. Networked sources and mobile phones were often the first source on the information pathway. Depending on the significance of the information, this pathway or triangulation process may change. When the sensitivity of the sought information is high, the information source can be a human source, such as friends. They demonstrated sophisticated processes of checking, comparing, verifying and making sense of multiple forms of information. This was particularly acute when the information mattered greatly to the participants. It was also clear that the information sources of the information pathway are not always determined by the extent of the expertise of the information source; a nonexpert information

source could also be considered in the information triangulation process when the confidentiality or sensitivity of the information is higher. Thus, affective criteria and cognitive strategies are used simultaneously to assess information sources.

5.3. Perceived reliability through cognitive authority and affective factors

This study showed that the more significant and sensitive the sought information, the more critical becomes the assessment of information sources, and elements such as trust and confidentiality become important. In such delicate contexts, the young people turn to information sources that they ascribe authority to. The ascribing of authority was seen to be both cognitive and affective. While the young people were found to ascribe cognitive authority to established and authoritative sources, they would also ascribe affective authority to sources which might not be the most authentic sources of information, yet they assure confidentiality and allow a more comfortable and emotionally supportive experience.

A contribution of the article is to point out the influence of social endorsement and cognitive authority in the source credibility assessment process of young people. Particularly in areas where knowledge is contested, the credibility of information sources is determined by the level of cognitive authority the user ascribes to them [4]. However, the study participants do show a clear contradiction when selecting information sources for information of higher significance. Similar to the outcome of the study carried out by Almeida et al. [20], it was observed that the young people do value expertise as a source selection criterion, but ease of access and their own judgement of trust determine sources that might not be the source with the highest level of expertise. This was clearly visible in the study. The participants would often lean towards information sources they *perceive as trustworthy and reliable*.

This tendency of ascribing cognitive authority was observed when seeking information from both networked sources and human sources. When it comes to networked sources, the participants verified the trustworthiness of the container of the information, the digital infrastructure that holds the information, along with the value of the informational content. There were sources such as websites they trust, and thus, they trust the information they provide. Such a tendency of trusting and hence loosely verifying information matches previous studies on youth information seeking [33]. Regarding human sources, they would often turn to people who are close in relation or who are reliable in terms of confidentiality. Thus, among human sources, friends and teachers and organisational sources such as youth work agencies were ascribed higher cognitive authority, which is in line with previous research in, for example, a health information context [24,25].

An important finding in this study is the affective factors that are present as source-determining criteria in the young people's information source selection process. The significance of the information determines the relevant information sources. The major criteria mentioned in the study were reliability of information, openness, expertise, trust, human contact, easy access, youth centricity, clarity of information, contemporary in taste, empathy and speed. These criteria partly match with categories such as accessibility, proximity and information quality mentioned in previous studies [31,35,40]. The young people value the availability and accessibility of information over other attributes, which stands in contrast with some previous studies on adult respondents [17]. However, in addition to those factors, affective factors such as trust, empathy and sensitivity and confidentiality of information were added as important source selection criteria. Due to their young age and lack of real-life experience or enough knowledge in certain areas, the young people tended to ascribe affective authority to information sources that allow a more supportive information consumption. In delicate contexts where anonymity and confidentiality are necessary, affective elements determine the preferred information sources. Thus, in such contexts, the young people prefer information sources that are subjectively appropriate, empathetic, emotionally supportive and/or aesthetically pleasing. This inclusion enriches the list of information source selection criteria and indicates the importance of affective factors in the source selection process of the young people.

5.4. Theoretical contributions

Although young people's information behaviour has been studied widely (e.g. Julien and Barker [22], Käsäkoski et al. [28], Twait [29] and Agosto and Hughes-Hassell [30]), this study brings important insights about young people's source selection criteria and how they assess the reliability of information in an everyday-life context. The novelty of this study lies in several key aspects. First, it emphasises interactivity as an important selection criterion when young people choose information source. Second, the study shows how skilled young people are in information triangulation strategies when validating the information they seek. They interact with multiple sources to manage complex information pathways. In addition, the study reveals the participants' motivations for selecting particular sources, their preferred sources in daily life and the cognitive criteria used to evaluate the authenticity of these sources. Finally, the study puts forward affective authority as an increasingly important source selection criterion which is different from cognitive authority and describes how sources with little expertise can be desired over other official and expert sources in certain contexts.

5.5. Practical contributions

Along with its theoretical contribution, the study provides a substantial practical contribution in the understanding of young people's information-seeking behaviour. The findings of the study help considerably in designing more responsive and attentive information services directed at young people. The study presented preferred information sources of young people, their interaction with multiple information sources and affective factors that influence their information source selection. The findings can help youth work agencies and youth workers to improve information services, help them communicate to the target group through a variety of channels and will raise the importance of taking affective factors such as empathy and confidentiality into consideration in information service delivery. As mentioned earlier, the study was part of a bigger project, and the findings contributed largely in regard to information service development to support young people with necessary information. In addition, the findings were also used to design a course (<https://www.eryica.org/desygn>) that provides youth workers with the knowledge and skills to design youth (information) services for young people and to support the youth workers to continuously evolve and improve youth information services in line with young people's ever-changing information-seeking behaviours.

5.6. Limitations

The study is exploratory in nature; moreover, it employs a small purposive sample group. Further research on larger and more diversified samples could create more generalisable insights. The interviews were carried out in the native languages of the respective locations; this allowed the subjects to express themselves seamlessly; however, the transcription was translated by the interview coordinators, and their own interpretation was used as the raw data for analysis.

The study also examined the youth's source selection based on self-reported data, which depends largely on the memory of the interviewee. It is possible that respondents sometimes find it difficult to correctly remember past incidents. Moreover, the article employs only one data collection process; future studies could benefit from more observational studies, daily diaries and activity logs. Finally, the interviews were a part of a larger project, Erasmus + KA2 (2019–2021), titled 'DesYIgn' and regarding young people's information behaviour, which aimed to study their information source selection in the service design of the Youth Information Agencies of Europe. Therefore, the mentioned interviews involved more questions than what was presented in the article.

5.7. Future research

The article allows researchers to gain more in-depth knowledge about the affective and cognitive authority young people use to select multiple information sources to validate sought information. These concepts can be further studied within both human and nonhuman sources to understand the assessment criteria and logic behind them. Moreover, information triangulation can be studied in a variety of contexts to gain a deeper understanding of the influence of context and other situational factors.

6. Conclusion

The majority of studies on the information-seeking behaviour of young people has focused on either listing the information sources used by the youth or on their information-seeking behaviour in problem-specific contexts. There is a dearth of studies that position the youth outside the schools and observe the process they apply to collect day-to-day life information. Addressing this limitation, the article explored the young people's dynamic source selection process in the context of everyday life. The study administered qualitative research and interviewed a sample of 37 European young people. The focus group study identified the different information source selection practises the young people display while seeking information and how they interact with multiple information sources and ascribe credibility to those sources using cognitive or affective strategies. In this study, it was shown that the young people are dependent upon networked sources for information seeking. However, they value human sources equally due to the convenience, trust and human nature of the sources. The study found that mass media, books and libraries are not popular among the youth but that they still rely on information coming from authoritative sources. In addition, the respondents described the practice of collecting information in bits from multiple information sources to reach a reliable version. To select a reliable information source in the contemporary technological landscape, the participants showed that they ascribe cognitive/affective authority to information sources that are perceived as trusted and are socially endorsed. The study found that ascribing authority and trust can be both cognitive and affective and that it is highly contextual. When the sought information requires higher accuracy, the participants ascribe cognitive authority to more official information sources. Alternatively,

when the sought information is more sensitive, the participants ascribed affective authority to sources that are emotionally supportive. The participants of the study show that in this process, affective factors are often important factors for their information source credibility assessment. This indicates that source selection can be based on both affective and cognitive factors.

Identifying unique factors and criteria pertaining to youth's information source selection has important practical implications for the designing of effective information services directed towards young people. The information services that focus on making young people aware and provide information about their education, employment and health could benefit from the study. Moreover, the article showed that while seeking everyday-life information, the young people use a complex information pathway or information triangulation to collect and verify information. Finally, this article adds affective and cognitive authority as source selection criteria, which was an important theoretical contribution and has been rarely studied among young people in earlier studies.

Acknowledgements

The focus group study on the information practices and information source selection of youth in Europe was a part of Project DesYIgn: Innovative Youth Information Design and Outreach, funded by the EU's Erasmus + programme. We want to especially acknowledge the ERYICA for coordinating the project and acknowledge all the youth information and counselling agencies for carrying out the focus group interviews in their respective countries.


Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship and/or publication of this article.

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