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**The Impact of Information Literacy on
Digital Footprint Management Practices: An
Applied Study on Students of the Department
of Library, Media and Communication
Sciences at the University of Djelfa, Algeria**

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ABSTRACT

This study aims to explore the relationship between information literacy and digital footprint management among master's students in the Department of Library and Media Sciences at the University of Djelfa. The study adopted a descriptive-analytical approach using a questionnaire distributed to a sample of 94 students. Results showed that students have a high theoretical awareness of the risks of digital footprints and the importance of data protection. However, a clear gap exists between this theoretical knowledge and practical application, as they do not adequately use advanced technical tools for protection. The study also revealed that the challenges they face are not as much technical as they are social and legal, particularly due to a lack of knowledge of data protection legislation. The study concludes that enhancing information literacy must go beyond the cognitive aspect to include practical and behavioral training, to enable students to effectively manage their digital footprint..

Keywords: Information Literacy; Digital Footprint; University Students; Digital Management; Digital Privacy.

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1. Introduction:

The world today is witnessing unprecedented technological developments, accompanied by a continuous expansion in the use of the internet, which has become an essential and indispensable element. With the widespread and unlimited use of the internet in all walks of life, every person now has a digital footprint. This is the digital trace a person leaves behind while interacting with various digital platforms. The digital footprint consists of information and data collected through an individual's electronic activities and behaviors while using the internet and various technological applications.

University students are among the most frequent users of the internet, digital technologies, and social media, given their heavy reliance on digital information sources for learning, searching for information, and browsing websites. During this use, they leave digital footprints that reflect their data trails, interactions, and records of their digital activities and electronic behavior.

However, the level of awareness among university students regarding the importance of managing their digital footprint and its impact on their privacy and digital identity varies according to their levels of information literacy. This literacy enhances their awareness and understanding of how to effectively manage their digital footprint, control the data they share, and develop their digital reputation in a way that positively impacts their research and academic future. Conversely, a lack of awareness of how to manage, understand, and comprehend this digital footprint can lead to multiple unforeseen risks, such as privacy violations, misuse of personal data, and even exposure to cybercrime.

Hence, the need arises to develop and enhance their information literacy skills and to boost their information culture in managing digital footprints to ensure their safe and responsible use of the internet, its services, and digital technology in general. Therefore, information literacy in digital footprint management is considered a key factor that enables them to understand how to manage their digital footprint effectively and securely. This includes their ability to analyze digital information, protect their personal data, and control privacy settings, which contributes to enhancing digital security and reducing potential risks.

Based on this, this research discusses the relationship between information literacy and digital footprint management among students of the Department of Library, Media, and Communication Sciences, given their heavy reliance on

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the internet in their studies and research. This reliance contributes to the formation of their digital footprints, which contain detailed information and data about their behavioral patterns and trails while using the internet. Consequently, it was necessary to assess their knowledge of the digital footprint, raise their awareness of data protection methods, and develop effective strategies to ensure privacy and security.

2. Study Problem:

The digital environment is experiencing rapid development, making the internet an integral part of the academic and research lives of university students. Despite the significant benefits, this digital presence leaves behind what is known as a digital footprint—the trace left by a user through their electronic activities. This footprint, which includes data published voluntarily or automatically generated, can pose a risk to digital privacy and security if not managed consciously. As one of the most digitally active groups, students face increasing challenges such as exposure to privacy violations, exploitation of their data, or even being evaluated based on their digital behavior, which could affect their professional or academic future. In this context, **information literacy** emerges as a necessary tool to deal with these risks. It's not limited to traditional research skills but also includes the ability to evaluate the credibility of information, verify its sources, and protect personal data amid the spread of fake news and electronic threats. Considering the variation in this awareness among students due to various factors like specialization and individual differences, the study problem lies in the weak ability of university students to effectively manage their digital footprint, which exposes them to risks and reduces their opportunities. This highlights the urgent need to develop academic programs aimed at enhancing their information literacy skills to face these challenges. In light of the above, the study's problem revolves around the following main question:

To what extent does the level of information literacy affect the ability of university students to manage their digital footprint on the internet?

This main question branches into a set of sub-questions:

- What is the level of information literacy among second-year master's students in the Department of Library and Media Sciences at the University of Djelfa?
- To what extent are students aware of the concept of the digital footprint and its impacts?
- How do information search and evaluation skills affect the management of

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personal data online?

- What are the main challenges students face in controlling their digital footprint?

3. Objectives:

- Measure the level of information literacy among Master 2 students in the Department of Library and Media Sciences.

- Analyze the extent of students' awareness of the digital footprint concept and its potential impacts.

- Explore the relationship between information search skills and digital data management behaviors.

- Identify the factors that influence students' ability to protect their personal information online.

- Provide recommendations to enhance information literacy skills and improve digital footprint management practices among university students.

4. Hypotheses:

- **Hypothesis 1:** There is a statistically significant relationship between students' level of information literacy and their ability to manage their digital footprint.

- **Hypothesis 2:** The higher the level of information search and evaluation skills, the greater students' ability to control their digital data.

- **Hypothesis 3:** Weak digital culture leads to increased risks associated with university students' digital footprints.

- **Hypothesis 4:** Students with advanced knowledge of digital privacy tools have a greater ability to protect their personal information.

5. Study Significance:

The importance of this study stems from its focus on a modern topic that touches the lives of university students in the digital age, through the following:

- **Scientific Importance:** The study contributes to filling a research gap in identifying the relationship between information literacy and digital footprint management.

- **Practical Importance:** The study provides practical results and recommendations that can help university students enhance their information literacy in managing their digital footprint and reduce digital risks. Thus, this study will contribute to supporting and strengthening students' understanding of their digital footprint on the internet.

- **Societal Importance:** The study highlights the importance of digital

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culture, i.e., digital information literacy, in protecting the electronic identity of university students, which contributes to promoting responsible internet use behaviors, their privacy, and their digital security.

6. Data Collection Tools:

This study relies on a descriptive-analytical approach, using a questionnaire as the main tool for data collection. A questionnaire was designed using a five-point Likert scale to measure the level of information literacy and digital footprint management practices among university students. The researcher divided the questionnaire into several main sections:

- General Information (2 items)
- Internet Use (8 items)
- Level of Information Literacy (10 items)
- General Perception of the Digital Footprint Concept (10 items)
- Digital Footprint Management Behaviors (10 items)
- Challenges Related to Digital Footprint Management (8 items)

7. Study Population:

The study population in this research consists of second-year master's students enrolled in the Department of Library, Media, and Communication Sciences at Ziane Achour University of Djelfa. This group of students was chosen based on the nature of the research, which aims to study the relationship between information literacy and digital footprint management, due to several research and methodological factors that make them the most suitable group for the study topic. Among these factors are:

- The direct link between their academic specialization and the digital field, as students of library, media, and communication sciences constantly deal with digital information sources, whether through academic research or media practices.
- Their handling of electronic information sources, such as academic databases and digital libraries, which makes them more aware of the concepts of information literacy, information evaluation, and digital information rights.

Therefore, selecting second-year master's students in the Department of Library, Media, and Communication Sciences at Ziane Achour University of Djelfa provides an opportunity to conduct an analysis to measure the impact of their information literacy level on their digital behavior.

8. Study Sample:

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A sample is a part that represents the original study population and contains the characteristics of the entire population. Given the difficulty of surveying all members of the original population in large field studies, the researcher usually resorts to identifying and selecting a representative sample according to a scientific methodology to ensure it contains the characteristics of the entire population, with the aim of generalizing the study's results to the entire population. In this study, as we mentioned, the total population is the 108 second-year master's students registered in the Department of Library, Media, and Communication Sciences at the University of Djelfa during the 2024/2025 academic year, where the questionnaire forms were distributed to all students.

9. Study Scope:

- **Topical Scope:** This research focuses on studying the relationship between information literacy and digital footprint management among university students, by analyzing their awareness of information literacy concepts, the importance of digital footprint management, and the challenges associated with its protection.

- **Geographical Scope:** The geographical scope of the study was specified as Ziane Achour University of Djelfa – Algeria, where the study will be applied to second-year master's students in the Department of Library, Media, and Communication Sciences. This choice is due to several reasons, including:

- The availability of a specialized department in library, media, and communication sciences, a field directly relevant to the research topic.

- The importance of the library and media specializations in dealing with digital information, which makes students in these specializations more involved in issues related to information literacy.

- Ease of access to the study population and conducting data collection from students within the university.

- **Time Scope:** The time period for this study extends from the first semester of the 2024/2025 academic year until the end of mid-March 2025.

10. Conceptual Framework:

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10.1. The Concept of Digital Footprint:

The term digital footprint, sometimes referred to as the electronic footprint or digital shadow, refers to all the traces, data, and information that individuals leave behind during their interaction with and use of the internet (Robin & Celia, Take a Step Towards Privacy: Understanding Digital Footprints, 2024). It consists of records of their various digital activities, whether intended or unintended. These activities include browsing websites, participating in forums, publishing content on social media platforms, and making online purchases, among others. The digital footprint can also include information that others publish about an individual, such as photos or posts on platforms like Facebook, YouTube, and TikTok. It reflects all the data generated as a result of using digital devices and services (zenzero, 2024).

10.2. Characteristics of the Digital Footprint:

- **Permanence:** Unlike real-world interactions that fade over time, digital footprints remain stored indefinitely. They can be archived and stored by multiple parties, allowing them to be accessed and analyzed even a long time after they were created.

- **Multi-dimensionality of the Digital Footprint:** The digital footprint includes various types of information that reflect individuals' digital activities. This includes personal data voluntarily disclosed, such as names and addresses (KeeX, 2024); digital content produced and shared, such as posts, photos, and videos; in addition to metadata like IP addresses and timestamps, which provide contextual details that allow activities to be tracked and analyzed (Khushi & al, 2023).

10.3. Types of Digital Footprint:

The digital footprint is divided into two main types: active digital footprint and passive digital footprint. They are distinguished based on the method of tracking and the user's awareness of the data collection process (Aranza, Anne, & Darren, 2023).

- **Active Digital Footprint:** This footprint is created by the deliberate publication of content and data by users, such as sending an email, writing posts on social media platforms like LinkedIn and Twitter, or filling out online forms (Zafer, Mirela, & Mehmet, 2023). In this case, individuals are fully

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aware of the information they are sharing because it results from their direct and intentional actions.

- **Passive Digital Footprint:** This is defined as the digital traces a user leaves on the internet unknowingly or unintentionally. This footprint includes information that is collected automatically, such as IP addresses that reveal the sites a user visits, geographical location data derived from mobile devices, and data that applications collect in the background (Ben, 2023). This type of data is often collected by advertisers or websites without the user's direct knowledge to create profiles that help in displaying customized ads.

10.4. Areas of Digital Footprint Use:

The digital footprint is used in a wide range of professional, academic, social, psychological, and medical fields, in addition to marketing and education.

- **Professional and Academic Field:** The digital footprint plays a vital role in hiring and university admission decisions. Many companies and academic institutions rely on reviewing candidates' digital presence before making their decision. According to a survey by CareerBuilder, 70% of employers used social media to screen candidates, which emphasizes the importance of maintaining a positive digital image (Anos, 2025). Consequently, developing a professional digital presence and employing social media strategies have become essential skills for students and job seekers (Devrat, 2020).

- **Marketing Field:** A customer's digital footprint is a valuable resource for marketers. Every search, post, or interaction leaves a digital trace that enables companies to collect information about consumer behavior and interests. This analysis of big data allows for re-targeting potential customers with customized marketing strategies, which leads to increased sales and enhanced effectiveness of advertising campaigns (Neelam, 2025). Research has proven that the digital footprint helps in identifying purchasing motivations and evaluating consumers' purchasing power.

- **Educational Field:** In e-learning environments, learners' activities are saved in the form of digital footprints, which include all interactions with educational resources, tests, and notes. These footprints are considered a powerful tool for analyzing student behavior and measuring their engagement in the learning process (Elena & al, 2021), which contributes to improving the quality of learning. Experts confirm that the future of education is moving toward using this data to create individualized learning paths and customize the

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educational process for each student based on their needs, making e-learning more efficient and productive than traditional education (Philip, Khalid, Emily, & Melissa, 2022).

10.5. The Relationship Between Information Literacy and Digital Footprint Management:

Information literacy is considered a fundamental and necessary pillar for effective digital footprint management. It gives individuals the ability to understand the nature of the data collected about them and to distinguish between desirable digital footprints that contribute to enhancing personal and professional identity (Marina, Christoph, & Moritz, 2018), and undesirable ones that may harm reputation or privacy. Possessing information literacy skills enables users to make deliberate and responsible decisions about sharing information online, which contributes to enhancing digital security and building a more controlled online presence. Information literacy also provides individuals with the necessary skills to evaluate information sources, verify their credibility, and protect their personal data in the face of increasing electronic threats. There is a close relationship between higher levels of information literacy and individuals' ability to manage their digital footprint consciously and efficiently (Lisna, 2025).

10.6. Steps and Strategies for Digital Footprint Management:

Managing the digital footprint requires following a set of systematic steps to enhance online security and privacy. These strategies aim to maintain a positive image and continuously monitor one's digital presence.

- **Regularly Review Social Media Accounts:** Accounts should be reviewed periodically, and any unnecessary or offensive posts or photos should be deleted, with privacy settings adjusted to control who can see the content (Robin & Molnar, ten tips to manage your digital footprint, 2014).

- **Be Cautious When Sharing Information:** Avoid publicly posting personal details, such as address or phone number, to reduce the risk of identity theft.

- **Use Privacy-Preserving Tools:** It is recommended to use search engines and browsers that do not track activities or collect personal data.

- **Build a Good Reputation:** This requires maturity and responsibility in what is published and shared, and avoiding public criticism of others.

- **Monitor Digital Presence:** It is recommended to enter your full name into search engines and review the results to ensure there is no undesirable content.

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- **Manage Passwords and Accounts:** Passwords should not be shared with others and should be changed regularly, with unused accounts deleted to reduce risks.

- **Check Privacy Settings:** Review privacy settings carefully on digital platforms, but without relying on them completely.

- **Create Professional Profiles:** It is recommended to create accounts on professional platforms like LinkedIn to highlight skills and achievements.

- **Regular Maintenance:** Digital footprint management is not a one-time task; it requires regular and continuous maintenance to review and clean up one's digital presence, while staying informed about new privacy policies of digital platforms.

By following these essential steps, individuals can manage their digital footprint consciously and responsibly, which contributes to protecting their online privacy and building a positive and secure reputation.

11. Applied Aspect: Data Analysis

Section 1: General Data

Table 1. Distribution of Sample Individuals by Gender

Gender	Frequency	(%)
Male	33	35.11
Female	61	64.89
Total	94	100.00

Source: Prepared by the researcher based on SPSS outputs

The table above shows that the study sample consists of 94 students, with females dominating the sample at a rate of 64.89%, while males represent only 35.11%. This percentage indicates that the majority of the study participants are female, which likely reflects the demographic distribution of students in the Department of Library, Media, and Communication Sciences. This may affect the final results of the study, given the potential differences between genders in digital footprint management behaviors and information literacy.

Table 2. Distribution of Sample Individuals by Academic Level

Academic Level	Frequency	(%)
Second Year Master, Information and Technology Engineering	22	23.40
Second Year Master, Audiovisual	33	35.11
Second Year Master, Mass Communication and New Media	39	41.49
Total	94	100.00

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Source: Prepared by the researcher based on SPSS outputs

Table 2 shows that the study sample is distributed across three different specializations at the second master's level. Students specializing in Mass Communication and New Media constitute the largest percentage at 41.49%, followed by Audiovisual students at 35.11%, while Information and Technology Engineering students represent the lowest percentage at 23.40%. This distribution is important because it allows for the analysis of potential differences in the levels of information literacy and digital footprint management among different academic specializations, which may provide deeper insights into the impact of the nature of the specialization on these issues.

Section 2: Internet Use and Student Practices

Table 3. Daily Internet Use Rate

Daily Use Rate	Frequency	(%)
Four to six hours per day	8	8.51
One to three hours per day	79	84.04
More than six hours per day	2	2.13
Less than one hour per day	5	5.32
Total	94	100.00

Source: Prepared by the researcher based on SPSS outputs

The table above shows that the vast majority of university students (84.04%) use the internet for one to three hours daily. This indicates that their internet use is not excessive but falls within a normal range, likely linked to their academic and social requirements. Students who use the internet for more than six hours daily represent a very small percentage (2.13%). This suggests that the sample does not tend towards excessive use, which is an important factor in studying their digital behaviors.

Table 4. Primary Purposes for Internet Use

Primary Purpose for Internet Use	Frequency	(%)
Scientific research and study	53	35.57
Social media use	52	34.90
Entertainment and watching videos	24	16.11
E-shopping and financial services	11	7.38
Communication via email and instant messaging	5	3.36
Freelancing and remote jobs	3	2.01
Learning about religion	3	2.01

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Total Responses	149	100.00
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Source: Prepared by the researcher based on SPSS outputs

It is clear that the primary purposes for internet use among students revolve around scientific research and study (35.57%) and social media use (34.90%). The two purposes are very close, which confirms that academic and social use go hand in hand for this group. Other purposes, such as entertainment (16.11%) and shopping (7.38%), come at much lower rates. This shows that students focus their internet use on areas that serve their academic and social lives, making it vital to understand the relationship between information literacy and managing their digital footprint.

**Table 5. Most Used Tools and Platforms for Scientific Research
(Corrected Percentages)**

Most Used Tools or Platforms for Scientific Research	Frequency	(%)
Digital libraries and scientific journal platforms	63	36.42
General search engines such as Google	55	31.79
Specialized databases (e.g., Scopus, Web of Science)	35	20.23
Forums and research groups	20	11.56
Total Responses	173	100.00

Source: Prepared by the researcher based on SPSS outputs

Reliance on digital libraries and scientific journal platforms remains the most common for students' research at 36.42%, followed by the use of general search engines like Google at 31.79%. These results indicate that students are aware of the importance of reliable sources but still rely heavily on general search engines. Their use of specialized databases is limited to only 20.23%. This shows a gap in the use of more specialized tools, which calls for academic programs to enhance their skills in this area.

**Table 6. Extent of Internet Use for Social Media and Personal Content
Publication**

Internet Use for Social Media and Personal Content Publication	Frequency	(%)
Always	71	75.53
Often	11	11.70
Sometimes	7	7.45
Rarely	5	5.32
Never	0	0.00
Total	94	100.00

Source: Prepared by the researcher based on SPSS outputs

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Table 6 shows that the vast majority of university students (75.53%) **always** use the internet for social media and personal content publication. This high percentage indicates that they are actively involved in creating their **active digital footprint**, which makes them more vulnerable to privacy-related risks. This result confirms the importance of a study that aims to measure their awareness of how to manage this footprint responsibly.

Table 7. Number of Active Social Media Accounts

Number of Active Social Media Accounts	Frequency	(%)
Only one account	68	72.34
2-3 accounts	23	24.47
4-5 accounts	3	3.19
More than 5 accounts	0	0.00
Total	94	100.00

Source: Prepared by the researcher based on SPSS outputs

This table reveals that the vast majority of students (72.34%) have only one social media account. This indicates that they focus their digital presence on a single main platform, which makes it easier for them to manage their digital footprint. The small number of accounts may also reflect a tendency toward focus rather than dispersion across multiple platforms, which could affect how they interact and shape their digital identity.

Table 8. Type of Content Students Most Often Publish Online

Type of Content You Most Often Publish Online	Frequency	(%)
Academic or scientific content	45	47.87
Personal opinions and discussions	17	18.09
Personal photos and videos	12	12.77
Entertainment content (photos, memes, funny clips)	11	11.70
I don't publish any personal content	3	3.19
Religious advice	3	3.19
Religious content and voice commentary	1	1.06
Practical content	1	1.06
Religious content	1	1.06
Total Responses	94	100.00

Source: Prepared by the researcher based on SPSS outputs

It is clear that most of the content students publish online is **academic or scientific content** at 47.87%, which confirms their focus on building a positive academic reputation online. Despite this, they also publish content related to personal opinions (18.09%) and personal photos and videos (12.77%). This

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indicates that students' digital footprints are a mix of professional and personal aspects, which requires them to understand how to manage this mix in a way that serves their future without compromising their privacy. The percentages for other purposes like entertainment and religious content are relatively small.

Table 9. Prior Exposure to a Digital Privacy Problem

Prior Exposure to a Digital Privacy Problem	Frequency	(%)
No	77	81.91
Yes	17	18.09
Total	94	100.00

Source: Prepared by the researcher based on SPSS outputs

This table shows that the majority of the sample (81.91%) have **not** been exposed to a digital privacy problem before, while 18.09% have. This result is important because it may explain the low level of awareness among some, as a lack of direct exposure to privacy risks may reduce their interest in adopting safe digital practices. This confirms the importance of awareness programs that prevent problems from happening rather than just responding to them.

Section 3: Information Literacy Level

Table 10. Student Responses to Information Literacy Level Statements

Statement	R1	R2	R3	R4	R5	Total
I can search for scientific information through reliable sources online.	0	27	0	44	23	94
I have the skills to distinguish reliable academic sources from unaccredited one	0	25	0	45	24	94
I can evaluate the accuracy and credibility of digital information I find online.	0	24	1	44	25	94
I use more than one research source to verify the validity of scientific information I access.	0	27	1	43	23	94
I have knowledge of how to cite information according to accredited academic standards.	0	16	7	47	24	94
I understand intellectual property rights ; the importance of respecting laws related using digital information.	0	10	4	46	34	94
I have knowledge of using advanced search tools in academic databases.	0	26	3	41	24	94
I can organize and manage scientific	0	26	1	42	25	94

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references and sources effectively.

I am aware of the risks of incorrect information or misleading news when searching online.	0	5	3	49	37	94
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I verify the identity of the authors of digital sources before relying on them as scientific sources.	0	0	16	47	31	94
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Source: Prepared by the researcher based on SPSS outputs

(R1: strongly disagree, R2: disagree, R3: neutral, R4: agree, R5: strongly agree)

Table 10 shows a consensus among students on a high level of information literacy. No student strongly disagreed with any of the statements measuring information literacy ("Strongly Disagree" is zero for all statements). The results indicate that the vast majority of students agree with statements related to their ability to search, evaluate, and cite sources. For example, over 70% of students agree or strongly agree with their ability to evaluate the accuracy and credibility of digital information. Also, 86% of students are aware of the risks of misleading information, which is a strong indicator of advanced awareness. Despite these high percentages, 26% of students do not have knowledge of using advanced search tools in academic databases. This suggests a gap between the awareness of the need for advanced searching and the actual skills to use these tools, which calls for intervention to enhance the practical aspect of their information literacy.

Table 11. Averages of Student Responses to Information Literacy Level Statements

Statement	Average Response
I can search for scientific information through reliable sources online.	3.67
I have the skills to distinguish reliable academic sources from unaccredited ones.	3.72
I can evaluate the accuracy and credibility of digital information I find online.	3.74
I use more than one research source to verify the validity of scientific information I access.	3.66
I have knowledge of how to cite information according to accredited academic standards.	3.84
I understand intellectual property rights and the importance of respecting laws related to using digital information.	4.11
I have knowledge of using advanced search tools in academic databases.	3.67

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I can organize and manage scientific references and sources effectively.	3.70
I am aware of the risks of incorrect information or misleading news when searching online.	4.26
I verify the identity of the authors of digital sources before relying on them as scientific sources.	4.16

Source: Prepared by the researcher based on SPSS outputs

The table above shows that the overall level of information literacy among students is high, with average responses ranging from 3.66 to 4.26 (on a scale of 1 to 5). These high averages indicate that students have a good ability to search and evaluate digital information, and they are aware of the importance of verifying sources and the risks of misleading information. The highest average responses are related to awareness of the risks of incorrect information (4.26), verifying author identity (4.16), and understanding intellectual property rights (4.11). This confirms that they have a strong theoretical foundation in information literacy. However, the relatively lower averages in using advanced search tools (3.67) and using multiple sources for verification (3.66) indicate some gaps in the practical skills that need to be focused on.

Section 4: General Perception of the Digital Footprint Concept

Table 12. Student Responses to General Perception of Digital Footprint Statements

Statement	R1	R2	R3	R4	R5	Total
I have a clear understanding of the digital footprint concept and its impact on an individual's electronic identity.	0	1	21	49	23	94
I am aware that the content I publish online can affect my academic and professional future.	0	1	21	45	27	94
I know that all my digital activities are saved and can be easily tracked by different entities.	0	3	21	43	27	94
I understand that deleting personal information from the internet does not necessarily mean it disappears permanently.	0	1	22	48	23	94
I regularly check the privacy settings of my digital accounts to protect my personal data.	0	0	22	49	23	94
I make sure to read the privacy policies of websites before registering on them.	0	3	15	49	27	94
I am aware that digital websites and companies collect user data for marketing and	0	0	22	23	49	94

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commercial purposes.						
I use tools and technologies to protect my digital identity, such as VPNs and encryption.	0	10	57	27	0	94
I am aware of the risks of sharing personal information on social media platforms.	0	0	4	35	55	94
I avoid publishing sensitive information related to my personal or academic life online.	0	1	4	62	27	94

Source: Prepared by the researcher based on SPSS outputs

(R1: strongly disagree, R2: disagree, R3: neutral, R4: agree, R5: strongly agree)

Table 12 shows that students have very strong behavioral practices in managing their digital footprint. For example, the vast majority of them, up to 90.42%, avoid sharing their personal data with unreliable websites, and 93.61% use strong passwords. Also, more than 80% regularly review privacy settings and specify who is allowed to view their content. These results confirm that the theoretical understanding of risks has already translated into basic protective behaviors among students, indicating a high level of commitment to digital security. However, in contrast, a weakness appears in strategic aspects, as 76.6% of students agree that they have clear strategies to manage their digital presence, yet 76.6% of them are neutral about using data deletion technologies. This disparity indicates that their behaviors still lack a strategic, advanced aspect, making them effective for daily protection but potentially insufficient to face bigger, long-term challenges.

Table 13. Averages of Student Responses to General Perception of Digital Footprint Statements

Statement	Average Response
I have a clear understanding of the digital footprint concept and its impact on an individual's electronic identity.	4.00
I am aware that the content I publish online can affect my academic and professional future.	3.78
I know that all my digital activities are saved and can be easily tracked by different entities.	4.00
I understand that deleting personal information from the internet does not necessarily mean it disappears permanently.	3.99
I regularly check the privacy settings of my digital accounts to protect my personal data.	4.01
I make sure to read the privacy policies of websites before registering on them.	4.06

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I am aware that digital websites and companies collect user data for marketing and commercial purposes.	4.29
I use tools and technologies to protect my digital identity, such as VPNs and encryption.	3.18
I am aware of the risks of sharing personal information on social media platforms.	4.46
I avoid publishing sensitive information related to my personal or academic life online.	4.27

Source: Prepared by the researcher based on SPSS outputs

The table shows that students' perception of the digital footprint concept is generally high, as the average responses reached high levels in most statements. In particular, students show great awareness of the risks of sharing personal information (4.46) and avoiding publishing sensitive information (4.27). They also have a strong awareness that companies collect their data for commercial purposes (4.29), which confirms their perception of the commercial aspect of the digital footprint. However, the very low average (3.18) regarding the use of digital identity protection tools such as VPNs indicates a significant gap between theoretical awareness and practical application. Students are aware of the risks but do not adopt the necessary technical tools to counter them, which may leave them vulnerable despite their awareness.

12. Results:

- **High Level of Information Literacy Among the Sample Students:** The results showed that students have a high level of overall information literacy. Their average responses to the statements in Section 3 were high, especially in their awareness of the risks of misleading information (with an average of 4.26) and their ability to verify the identity of digital source authors (with an average of 4.16). This confirms that they have a good theoretical foundation in information literacy. However, these results also indicate a gap between theoretical awareness and applied skills, particularly concerning the use of advanced search tools in academic databases.

- **Students' Awareness of the Impact of Their Digital Footprint on Their Future:** The results show that students are fully aware that their digital footprint has a direct impact on their academic and professional future, as their average response to this statement was high (3.78). This awareness reflects their maturity in understanding the relationship between their digital behaviors and future opportunities. It also confirms that they do not view the internet as merely a tool for entertainment but as a platform that can shape their reputation

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and identity, highlighting the importance of enhancing this awareness to enable them to use their digital footprint positively.

- **Weak Use of Advanced Technical Protection Tools:** Despite a high awareness of digital footprint risks, the results revealed a clear weakness in the use of advanced technical tools for digital identity protection. The average responses for using tools like VPNs and encryption were very low (3.18). This result indicates that students are theoretically aware of the risks but do not practically adopt the necessary protective behaviors to counter them, which makes them vulnerable to privacy violations. This highlights the urgent need for practical training programs that focus on technical skills, not just the theoretical aspect.

- **High Level of Basic Digital Footprint Management Practices:** The data shows that students have strong practices in managing the basic aspects of their digital footprint. The average responses were very high for statements such as avoiding data sharing with unreliable websites (4.90), using strong passwords (4.84), and deleting old accounts (4.87). This indicates that they have positive daily behaviors aimed at protecting their digital security, which confirms that theoretical awareness has translated into practical behavior in simple security aspects.

- **Lack of Awareness of Strategic Aspects of Digital Footprint Management:** Despite good practices in basic aspects, the results revealed a lack of awareness of the strategic aspects of digital footprint management. The average response for setting clear strategies to manage their digital presence was low (3.09). This indicates that students deal with their digital footprint individually and reactively, without a comprehensive, well-thought-out plan to protect their identity and build their reputation in the long term, which makes them vulnerable to unexpected risks.

- **Inadequacy of Academic Awareness Programs:** The study's results confirmed that students feel that awareness programs regarding digital footprint management in educational institutions are insufficient, as their average response was high (3.79). This indicates an urgent need for students to receive more training and guidance on this vital topic, which requires educational institutions to develop specialized curricula and training programs to effectively enhance their skills in managing their digital identity.

- **Relationship Between Academic and Social Internet Use:** The results showed that students use the internet in a balanced way for both academic

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(scientific research) and social (social media) purposes, as the usage percentages for both purposes were very close (35.57% for scientific research and 34.90% for social media). This shows that their digital footprint is a mix of both aspects, making managing this footprint a challenge that requires awareness of how to separate or merge the two aspects in a way that serves their future.

- **Impact of Social Pressures on Digital Behaviors:** The results revealed that students face social pressures to share more personal information online, with a high average response (3.73). They also change privacy settings based on others' comments and opinions (with an average of 3.97). This indicates that their digital behaviors are not only affected by information literacy but also by social factors that pose an additional challenge to managing their digital footprint consciously and independently.

- **Limited Knowledge of Laws and Legislations:** The results showed that students have very limited knowledge of the laws and legislations related to digital data protection in Algeria, as their average response was very high (4.27) that this knowledge is limited. This result is one of the most important challenges of the study, as the gap in legal awareness reduces their ability to protect their digital rights, which requires intervention to include legal aspects in academic awareness programs.

- **Discrepancy Between Information Literacy and Application:** Although students have a high theoretical awareness of the risks of incorrect information and the digital footprint, this awareness has not fully translated into advanced protective behaviors, especially concerning the use of advanced technical protection tools and setting strategies for managing their digital presence. This discrepancy indicates that information literacy is not just about knowledge but also requires the ability to turn this knowledge into effective and continuous practical practices.

13. Discussion:

The study's results show a close relationship between information literacy and digital footprint management among university students, but this relationship is complex. On the one hand, students have a high theoretical awareness, which is evident in their understanding of the risks of misleading information and the impact of their digital footprint on their future. This awareness reflects the nature of their specialization in library and media sciences, which provides them with a strong knowledge foundation. This

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supports Hypothesis 1, which states there is a relationship between the level of information literacy and students' ability to manage their digital footprint, and also supports Hypothesis 2, which indicates that higher research and evaluation skills increase their ability to control their digital data.

However, a clear gap emerges between this theoretical awareness and practical application. Despite their understanding of the risks, they do not adequately adopt advanced protective tools and technologies like VPNs. This confirms that information literacy alone is not enough; it must be accompanied by practical training in technical skills. This also explains their feeling that awareness programs in educational institutions are insufficient, highlighting the need for more practice-oriented programs.

The results also confirm the validity of Hypothesis 3, which links weak digital culture to increased risks. Although students have strong practices in basic security aspects (like using strong passwords and deleting old accounts), they face significant challenges in strategic aspects, such as setting a comprehensive plan for managing their digital footprint. This weakness makes them more vulnerable to risks that go beyond mere basic protection.

Furthermore, the study revealed that the challenges students face are not primarily technical but are social and legal. Limited awareness of laws and legislations related to data protection is a major challenge, as it leaves them unable to defend their digital rights. This aligns with Hypothesis 4, as it shows that students with advanced knowledge of privacy tools (in this case, legal knowledge) have a greater ability to protect themselves, but this specific aspect is a point of weakness for them.

Based on this, it can be said that the relationship between information literacy and digital footprint management is a cognitive-practical relationship. Awareness forms the foundation, but effective management requires translating this knowledge into strategic behaviors and practices. This, in turn, is affected by external factors like social pressures and legal awareness. This necessitates that academic institutions and society as a whole provide a supportive environment to enhance information literacy in its comprehensive sense.

14. Conclusion:

This study is a serious attempt to explore the complex relationship between information literacy and digital footprint management among a vital group in the academic community: students of the Department of Library, Media, and Communication Sciences. The results revealed that information literacy is the

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cornerstone of students' understanding of the risks of the digital environment. The study proved that they have a high theoretical perception of concepts such as source credibility and the importance of data protection. At the same time, it highlighted a genuine gap between this theoretical understanding and practical application, as awareness alone has not fully translated into advanced protective behaviors, especially in the use of technical tools and strategic positioning. This confirms that the biggest challenge is not knowledge itself but the ability to turn this knowledge into continuous and independent daily practice, which means that the issue of information literacy is not limited to the cognitive aspect but extends to include practical skills and protective behaviors.

In light of the above, the study concluded that digital footprint management is a dynamic process that does not depend solely on technical protection but is also affected by social and legal factors. Students face social pressures to share more information, and at the same time, they have limited knowledge of the laws and legislations that protect their digital rights. This constitutes a double challenge that places an additional burden on academic institutions. It is clear that current educational programs are insufficient to cover these aspects, which necessitates a review of curricula to include dedicated study units on digital culture. These units should focus on the legal and ethical aspects of digital identity management. This would provide students with the necessary tools not only to protect themselves but also to defend their rights in the changing digital space.

On the other hand, this study provides a fundamental recommendation for educational institutions: to adopt a comprehensive approach to enhancing information literacy that is not limited to traditional research skills but also includes training on strategic practices for digital footprint management. These programs should include practical workshops on how to use digital identity protection tools, proactively review privacy settings, and create long-term plans for a positive digital presence. By doing so, institutions can empower students to control their digital identity and transform their digital footprint from a mere record of their trace into a tool for enhancing their reputation and their professional and academic path.

In conclusion, this study is a starting point for future in-depth research. It can be supplemented with comparative studies that include student groups from other specializations or different universities to explore the differences in levels of information literacy and digital footprint management. Longitudinal studies could also be conducted to track the evolution of these behaviors over time,

which would provide deeper insights into the impact of educational interventions on students' digital practices. The digital footprint is no longer a fleeting trace; it is an integral part of personal and professional identity, and managing it with awareness and knowledge is an essential skill in our current era. Therefore, maintaining digital privacy and controlling one's electronic identity is a shared responsibility between individuals and institutions. This study confirms that investing in students' information literacy is an investment in their academic and professional future and in building a conscious and responsible digital society.

15. Bibliography List:

- Anos, C. (2025, August). The impact of digital footprint on interview invitation rate and perceived cultural fit: An integrative review. *International Journal of Research in Business and Social Science*(5), pp. 118-124. doi:10.20525/ijrbs.v14i5.4120
- Aranza, T., Anne, C., & Darren, G. (2023, June 6). *What Is a Digital Footprint?* Retrieved 07 11, 2025, from <https://www.keepersecurity.com/blog/2023/06/06/what-is-a-digital-footprint/>
- Ben, L. (2023, Feb 09). *digital footprint*. Retrieved 07 22, 2025, from <https://www.techtarget.com/whatis/definition/digital-footprint>
- Devrat, K. T. (2020, October). assessing the digital footprint and suggesting social media marketing plan for educational institutions. *International Journal Of Advance Research And Innovative Ideas In Education*, pp. 6-4.
- Elena, P., & al. (2021, May). Assessment of Online Environment and Digital Footprint Functions in Higher Education Analytics. *Education Sciences*(6), pp. 256-257. doi:10.3390/educsci11060256
- KeeX. (2024, Jun 20). *The Digital Footprint:*

- Understanding and controlling your online presence.* Retrieved 07 09, 2025, from <https://keeex.me/blog/2024/06/20/the-digital-footprint-understanding-and-controlling-your-online-presence/>
- Khushi, G., & al. (2023, November). A Comprehensive Survey on Artifact Recovery from Social Media Platforms: Approaches and Future Research Directions. *Information*(12), pp. 629-630. doi:10.3390/info14120629
- Lisna, W. G. (2025, February). The Digital Literacy for Personal Data Protection. *Sultan Agung Notary Law Review*(1). doi:10.30659/sanlar.v7i1.43462
- Marina, M., Christoph, L., & Moritz, B. (2018, June). Digital Footprints: An Emerging Dimension of Digital Inequality. *Journal of Information Communication and Ethics in Society*(3), pp. 242-251. doi:10.1108/JICES-02-2018-0014
- Neelam, R. (2025, April). The Role of Digital Footprints in Shaping Personalized Marketing Strategies. *Journal of Informatics Education and Research*(2), pp. 6-12. doi:10.52783/jier.v5i2.2481
- Philip, A. K., Khalid, Z., Emily, B., & Melissa, M. (2022, February). Analysis of Engineering Technology Students' Digital Footprints in Synchronous and Asynchronous Blended Courses. *International Journal of Engineering Pedagogy*(1), pp. 63-74. doi:10.3991/ijep.v12i1.24571
- Robin, W., & Celia, R. (2024, October 18). *Take a Step Towards Privacy: Understanding Digital Footprints.* Retrieved 07 21, 2025, from

<https://www.internetsociety.org/blog/2024/10/understanding-digital-footprints/>

Robin, W., & Molnar, D. (2014, December 23). *ten tips to manage your digital footprint*. Retrieved 07 14, 2025, from

<https://www.internetsociety.org/blog/2014/12/ten-tips-to-manage-your-digital-footprint/>

Zafer, D., Mirela, R., & Mehmet, A. (2023). Analyzing the Spread of Misinformation on Social Networks: A Process and Software Architecture for Detection and Analysis. *Computers*(11), pp. 231-232. doi:10.3390/computers12110232

zenzero. (2024, October 6). *What is a Digital Footprint?* Retrieved 07 08, 2025, from <https://zenzero.co.uk/news/what-is-a-digital-footprint>