Competences of SEO specialists: a perspective from the labor market. Technical note

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Abstract

The search engine optimization (SEO) specialist, or web positioning specialist, is one of the digital communication professionals that have emerged from the use of search engines as a means of attracting online audiences. The results of an analysis of labor demand demonstrate the importance of specific competences not intrinsically linked to this specialty, such as web analytics and digital marketing, and transversal competences, such as analytical skills, English-language skills, and an interest in learning. Its implications for the academic and business world open up future areas of study to confirm the professional sector's requirements and illustrate the effectiveness of higher education, focusing on improving employability.

Keywords

Search engine optimization; SEO; Web positioning; Professional profiles; Competences; Professional skills; Labor market; Search engines; Web visibility; Digital communication.

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1. Introduction

The emergence of new technologies in communication and marketing has led to the creation of new professional roles to meet the needs of companies and institutions so that they can reach their audiences. These roles include the SEO specialist or expert, whose objective is to

"enhance the quality of documents to increase their visibility in relation to the algorithms that establish rankings on search engines, especially *Google*" ["*destacar la calidad de los documentos para aumentar su visibilidad en relación con los algoritmos que establecen las posiciones en los motores de búsqueda, especialmente Google*"] (**Rovira** *et al.*, 2018, p. 560).

The different fields in which SEO specialists work shape their basic knowledge. On one side, there are technical competences related to improving web accessibility for search engines (**Correyero-Ruiz**; **Baladrón-Pazos**, 2010), and on the other, competences related to content optimization through keyword research (**Nagpa**]; Companies looking for an SEO specialist require a mixed skill set, primarily related to search engine advertising rather than organic optimization alone

Petersen, 2020); and finally, those concerning link building to increase engagement (**Zhang**; **Cabage**, 2017). In addition to these three areas, knowledge of how search engines (**Papí-Gálvez**; **López-Berna**, 2011) and sector-specific tools (**Miguel-San-Emeterio**, 2019) work is also required. In addition, this role integrates knowledge of marketing and web analytics and, in terms of general competences, the ability to stay up to date, autonomy, planning, communication skills, and an analytical, intuitive, and creative mind (**Spinuzzi**, 2010; **Maciá-Domene**, 2020).

Having a "competence profile that meets the demands of the job market" ["*perfil competencial adecuado a las demandas del mercado de trabajo*"] is the main objective of universities to promote employability (**Pizarro-Lucas** *et al.*, 2021, p. 93), one of the key points for quality improvement that has been promoted by the *National Agency for Quality Assessment and Accreditation* of Spain [*Agencia Nacional de Evaluación de la Calidad y Acreditación*] (*Aneca*), and that, in the communication sector, follows the *European Commission*'s recommendation regarding the improvement of

"skills and qualifications required in the labor market, especially in the field of information and communication technologies" ["capacidades y cualificaciones demandadas en el mercado laboral, especialmente en el ámbito de las tecnologías de la información y la comunicación"] (2019, p. 9).

Based on these premises, the main objective of this research is to determine the competences required of SEO specialists from the business world's perspective based on its labor demand. In addition, this research also aims to identify related disciplines and, where appropriate, roles performed in conjunction with the SEO role to open up a discussion about the degrees that are currently available and changes in curricula.

2. Materials and methods

This study used a quantitative method to collect data from other research studies (Álvarez-Flores *et al.*, 2018; Clemente-Mediavilla; Antolín-Prieto, 2019). Information was extracted from job postings placed on *InfoJobs* over a period of six months, between February and July 2019, in which the word "SEO" was included. *InfoJobs* was selected as it is the most widely used comprehensive employment portal in Spain (*TMP Worldwide Spain*, 2017). The total number of job postings was 1,377, of which only those including the terms "web positioning" ["*posicionamiento web*"] or "SEO" in the title and limited to Spain were selected. This screening resulted in 139 postings, from which the specific knowledge and general competences required were collected. Both those listed under the heading "essential knowledge" ["*conocimientos necesarios*"] and those included in the "job description" ["*descripción*"] were coded. Information about the level of education and the specialty was also collected to identify the related disciplines.

3. Analysis and results

The job postings analyzed contained a specialized knowledge and skills section and a group of general skills, transversal to any other position. In relation to the specific competences, half of these postings required experience with web analytics or *Google Analytics* (*GA*; *Google*'s analytics tool), knowledge of digital marketing strategies (40%), and experience with pay-per-click (PPC) campaigns, especially for search engines. Also worth noting were knowledge of SEO tools (e.g., *SEMrush, Ahrefs*, and *Sistrix*) (25%) and of content management systems (CMS) and social media (more than 20%) (Graph 1).

The most widely demanded general competences included analytical skills (27%), English (22%), an interest in learning (14%), proactivity (13%), communication skills (12%), teamwork (12%), and problem-solving skills (9%). Creativity was present in 4%, whereas a fine eye for detail was present in 2% (Graph 2).

Regarding the level of education, 45% demanded a degree or equivalent, while 37% required vocational or educational training (VET). The level of specialization was not specified in 72% of cases; only 15 of the 139 job postings required a university degree in marketing,

Of the knowledge required from a SEO professional, web analytics stands out because it is not a competence exclusive to this profession



Graph 1. Specific competences required for SEO roles

communication, economics, or advertising, while 14 required VET in commerce and marketing. Most job postings (80%) required previous experience, of between 1 and 3 years.

Among all the job postings (n = 139), 59% were looking to fill an SEO role combined with another role, whereas in 41% of cases, they sought an exclusive SEO specialist. In those postings looking to fill an SEO role combined with another role, 48% requested a background in SEM/PPC, that is, search engine marketing management systems and pay-per-click campaigns, followed by roles related to social media (17%) or digital marketing (16%).

Among the job postings for an SEO-only role (n = 57), the most in-demand competences did not differ from those in which the SEO role was combined with other roles, with the most often required competences (after those related to the field itself) being applied and

to the field itself) being analytics, and marketing and strategy. In this regard, knowledge of English, use of SEO tools, and analytical skills are of particular note.

4. Discussion and conclusions

The research described herein focuses on identifying the competences and disciplines associated with the SEO specialist role by studying labor demand. In light of the results, it can be concluded that companies actively seeking this type of professional want a mixed skill set, primarily related to search engine advertising rather than organic optimization alone.

In turn, among the competences not exclusive to SEO, analytics is also par-



Graph 2. Transversal competences required for SEO roles

ticularly highly valued, demonstrating the importance of monitoring metrics on the Internet, even over reaching the top position or driving traffic. This is also the case with digital marketing strategy, which is essential to gain a broader view of business objectives, as well as content strategy and management. Accordingly, the most in-demand transversal competences were analytical skills, When an academic background is a requirement for hiring an SEO specialist, companies prefer SEO specialists with university degrees in marketing, communication, advertising, or economics.

closely linked to web analytics, which was an SEO-specific competence requirement; knowledge of English; and the ability to constantly learn and stay up to date, which is essential in this ever-changing world.

These results confirm the existence of a hybrid profile, in which the competences that a single university degree program is meant to develop may not be sufficient. In fact, employers indicate a preference for experience over formal training. However, when a degree is required, it is a university degree and, in particular, in fields related to marketing, communication, advertising, or economics.

This study's main contributions are related to considering the degrees currently available and the contribution of higher education. It may be necessary to bridge the gap between the reality of the working world and the academic environment, strengthening ties between business and universities, and thus helping to meet the objectives of the *European Commission* and the *Aneca* project's objectives of improving the performance of universities in terms of employment and employability. The issue lies in how this should be done.

Among the many possibilities, there is an urgent need to bring such seemingly disparate areas as the social sciences and technological fields closer together. This does not only involve knowing how to work as part of a hybrid team, or as a part of a process; the job postings also demonstrate a need to train people with a sufficient command of not only technological but also communication-oriented skills so that they can implement this knowledge effectively in their work in marketing, communication, and advertising, as well as economics. This research thus reveals that the SEO role can act as a paradigmatic case study to provide a better understanding of the hybridization of such competences, which, in principle, might seem to originate from different disciplines. Moreover, the set of competences associated with this type of professional could be a starting point for achieving effective levels of digital competences that go beyond professional specialization.

In any event, in view of this evidence, future lines of study should focus on understanding the SEO business network, establishing the requirements of the sector, as well as identifying the competences of SEO professionals. It is also necessary to understand the university context –the educational offering that responds to these types of labor market demands– by taking an in-depth look at the people involved in the educational process, the faculty's level of knowledge about these roles, and the competences related to them, as well as the students studying social science themselves, to determine whether they are willing and able to specialize in these roles. Finally, an in-depth look at the competences related to SEO is proposed, with the intention of identifying those competences that can be ranked as having different

difficulty levels (basic, intermediate, or advanced) to determine their relationship to other competence models, such as the *European Digital Competences Framework* (**Vourikari** *et al.*, 2022) to eliminate the digital divide.

Transversal competences, especially analytical skills, are considered very important for SEO professionals

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