

Better paid job offers in communication and design: new profiles and the full-stack effect¹

Ofertas de empleo mejor remuneradas en comunicación y diseño: nuevos perfiles y efecto full-stack



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Abstract:

Communication and design are dynamic sectors with regard to career opportunities. This is due to their involvement in the digital world and the new interactive technologies, among other reasons. By analyzing job offers published in Domestika, the principle specialized web portal in the sector, we have carried out a diagnosis of the most highly demanded and best paid

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Resumen:

Los sectores de la comunicación y el diseño se mueven en escenarios profesionales cambiantes y dinámicos, entre otras razones, debido a su participación en el mundo digital y las nuevas tecnologías interactivas. A través de las ofertas de empleo publicadas en Domestika, el principal portal especializado en el sector, podemos realizar un diagnóstico de los perfiles más demandados y mejor remunerados, pero

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professional profiles as well as the requirements for these types of profiles. This study reveals that in the area of communication, the digital world is the leader in employment offers, although a higher salary is not always implied by this situation. There are professional profiles linked to social networks, an activity that we usually identify as a digital trend, which have a lower remuneration than would be expected. However, the best paying jobs are those linked to big data, user experience (UX), and digital marketing and design department coordination. The full-stack profile and its integrated perspective from the user's experience to the infrastructure that supports services, is a reality among these types of higher-paying jobs.

Keywords:

Professional competencies; job profiles; communication; full-stack; big data

también de los requisitos que se identifican con este tipo de perfiles. Este diagnóstico revela que, en el ámbito de la comunicación, lo digital lidera la oferta de empleo, aunque no siempre implique una mayor remuneración salarial. Existen perfiles profesionales vinculados a las redes sociales, actividad que normalmente identificamos como una tendencia digital, que presentan una remuneración inferior a lo esperado. Sin embargo, destacan los empleos vinculados al big data, el user experience (UX) y la coordinación de los departamentos de marketing digital y diseño como las ofertas de empleo mejor remuneradas. El perfil full-stack y su perspectiva integral, desde la experiencia de usuario hasta la infraestructura que soporta los servicios, aparece como una realidad entre este tipo de trabajos mejor pagados.

Palabras clave:

Competencias profesionales; perfiles de empleo; comunicación; full-stack; big data.

1. Introduction

The constant change that characterizes the digitization of communication has meant a permanent evolution of the professional profiles associated with this area of knowledge and the competencies required for successful professional performance, which implies additional difficulty in establishing adequate planning of the training activities aimed at both students as well as professionals (Vivar-Zurita, 2011). One of the fields of study developed in the scientific literature analyses the professional profile in the communication and design sectors based on job offers published in specialized media, which is the starting point of this research. In a sample limited to 75 job offers related to the Communications profile, the absence of knowledge and technological skills in 60% of the offers had been observed in previous studies (Armendáriz, 2015).

Along these lines, Alvarez-Flores et al. (2018) analyse the skills required for the performance of some professional roles in the advertising industry, concluding that there are several recurring competencies among those profiles, such as knowledge regarding social networks, web design, and SEO/SEM, which are key elements of digital advertising. Moreover, it is essential to employ the use of the English language in addition to features and attitudes such as creativity, teamwork, working under pressure, or the desire to continue learning, which are related to other basic disciplinary knowledge (Álvarez-Flores et al., 2018).

The skills of communication professionals with high potential transcend their practical knowledge and technical abilities (Perlado-Lamo-de-Espinosa, 2013), as they distinguish themselves by their strategic, empathetic, expressive, decisive abilities, and they are able to find common guidelines for implementation and interrelation (Fuller et al., 2018).

With their adaptation to the European Higher Education Area (EHEA), degrees in Advertising and Public Relations brought the integration of new technologies (Cuesta-Cambra and Mañas-Viniegra, 2016), the identification of professional profiles and professional competencies (ANECA, 2005, Núñez, García and Abuín, 2013), and greater specificity despite the fact

that academics perceive that the labour market is evolving toward the predominance of a multidisciplinary profile in which the online environment prevails (López-Berna, Papí-Gálvez and Martín-Llaguno, 2016), although less than 5% of the specific subjects of the curricula of Spanish universities are, for example, related to communication in social networks, a fact that continues to move universities away from the reality of the selection processes carried out by companies (Navío-Navarro, González-Díez and Puebla-Martínez, 2018).

In this way, and despite the fact that 90% of the jobs in Europe already require some kind of digital competence (European Commission, 2017), it is difficult to achieve advanced digital capability in terms of transformation, innovation and creativity (Martin et al. Grudziecki, 2006). The development of interactive communication has demonstrated the importance of professional profiles with features as diverse as interactive design, web design, art direction, media project manager, user experience or usability expert (Soler-Adillon et al., 2016), showing that full-stack development, which requires knowledge of the front-end environment as well as the back-end (Carrillo-Tripp et al., 2018), also requires project management, infrastructures and databases with the aim of understanding the entire process rather than the ability to develop all of the parts (Tegze, 2017).

These competencies are especially relevant for the interconnection that is currently required, enhanced within the context of the Internet of Things (Mazzei et al., 2018).

The term full-stack was created as a result of conversations that the developer Carlos Bueno generated in his social networks within the context of software development to designate a professional who is a “generalist”, because “nobody can know everything about everything”, but one should be able to “visualize what happens from the lowest level to the highest level in a computer application” (Bueno, 2010). However, this concept acquires greater development when we extend it to other territories of the changing world of digital communication where profiles with this systemic perspective, which combines the client side with the infrastructure that supports different services, have also become indispensable.

An example of this development, in two opposite but complementary directions, would be those professional profiles that combine user experience (UX) and database management (statistics, data mining, and big data). The concern for user experience (UX) with regard to design involves working to achieve ease of use, satisfaction, enjoyment, fun and visual appeal (Frederick et al., 2015). However, it is necessary to combine such user experience with interactivity in the user interface (UI), as long as its effects and gratifying qualifications are improved (Sutcliffe and Hart, 2017). Consequently, both design and experiential aspects are essential in this third wave of human-computer interaction or HCI (Vermeeren, Roto and Vaananen, 2016), and learning these requires a pedagogical approach that solves real problems in achieving the necessary professional competencies. (Getto and Beecher, 2016).

The revolution that is generating data management is another essential factor in the perspective of the communication professional. Every two days there is as much digital information as all the conversations that have taken place throughout history (Romanov, 2015), and it should be highlighted that while in the year 2000 only 25% of the information was in digital format, in 2007 the analogic information comprised just 7% of the total (Hilbert, 2012). All of this management of large amounts of information that compels us to speak about big data and its interrelation with the media implies

personalized development of informative and advertising content (Couldry and Turow, 2014), despite the fact that the creative possibilities provided by the data have not yet been explored (Selva-Ruiz and Caro-Castaño, 2016).

For all of these reasons, the professional who specifically includes him or herself within interactive digital communication is the one who perceives the most valued skills to be “learning independently and adapting to technological change” (Ventura, Roca-Cuberes and Corral-Rodríguez, 2018: 340), as well as “having knowledge of and applying specific software and new digital technologies to the sector” (2018: 341), with these considered to be the most important disciplinary competencies. Monge-Benito and Etxebarria-Gangoiti (2017) compared the skills most highly valued by advertising professionals in the Basque Autonomous Region between 2008 and 2016, and found a particularly decisive weight on digital marketing skills.

The journalistic field also urgently requires greater digital skills that will allow it to struggle against the gradual fall in the number of readers that has been suffered during the last decade by the traditional press as reflected by the fact that 46.67% of the continuous training that RTVE journalists receive deal with technological innovation (Ortiz-Sobrinó, 2015).

A technological profile is essential so that journalists do not become a less important element of the teams that today are composed of programmers, system technicians and software developers. Only then will it be possible to analyse news-related big data, process it, understand it, and make it comprehensible (López-García, Rodríguez-Vázquez and Pereira-Fariña, 2017). The first approach that Journalism students make toward the labour market is in the role of interns, with a remuneration that ranges from 0 to 500 euros, with their digital tasks being limited to online writing (Pérez-Serrano, Rodríguez-Barba and Rodríguez-Pallares, 2015).

Digital professional profiles increasingly require more specific training and previous experience in a digital environment. In the case of the community manager, 89% had held positions in online communications before accessing their current positions, and even considering communication studies as the most suitable (73.5%), the figure of 59.3% consider a postgraduate specialization to be necessary, and 33.0% consider it necessary to incorporate specific subjects into undergraduate studies (Silva-Robles, 2016). At the beginning of this decade, Sánchez-Gonzales and Méndez-Muros (2013) analysed the 2.0 professional profiles of communication, confirming a rise in the figure of the community manager. After the changes that have taken place in Internet with big data, it would be necessary to verify whether this figure continues to lead in job offers in the communication sector.

Regarding the Director of Public Relations in large companies, his or her strategic and communicative competence is usually highlighted, but nothing is said about technological issues (Cabrera-Cabrera and Almansa-Martínez, 2016) beyond digital communication carried out in social media (Puertas-Hidalgo, Cadme and Álvarez-Nobell, 2015). As a result, communication consultancy firms have added online communication services to their offering, which is currently provided by 53.8% of these companies (Miquel-Segarra, López-Font and Gil-Soldevilla, 2018).

Competencies associated with Audiovisual Communication degrees have also been diversified and digitized despite the fact that on average limited importance is placed on database management (3.62/5.00) or on programming and optimization of web pages, SEO and SEM (3.21/5.00) (Besalú-Casademont, Schena and Sánchez-Sánchez, 2017), by

professionals, teachers and students. In short, communication and design are among the sectors that are most sensitive to the changes taking place in a space as dynamic as the Internet:

“The massive data, its exploitation via artificial intelligence, and the suppression of boundaries between channels, devices and various types of interaction, make us visualize an Internet that fills and occupies everything. The immediacy and personalization transform the user into a changing source of data, but which is susceptible to being changed –due to the effects of chatbots, voice interaction, or because Google proposes certain chains of terms that guide us while at the same time impose them on us–. In addition, the ability to change behaviour by those who have the power to transform our interactive experience is constantly audited by a society in which everyone is a user and a brand” (Serrano-Cobos, 2016: 849).

2. Methodology

The present investigation carries out a content analysis of the job offers published between April and July of 2018 by the website *domestika.org*, the most prominent and specialized site in sectors such as communication, design and advertising (Álvarez-Flores et al., 2018).

The specific objectives are as follows:

- Analyse some of the quality factors in job offers in the communication and design sector.
- Determine which sectors of communication and design are better paid in the sample.
- Define the professional requirements associated with better remuneration.

Of the 1,150 job offers compiled, those outside the communication sector have not been included, resulting in a final corpus of 1,134 offers. The data sheet matrix includes the following sections: job title, company, city, country, type of employment (internship, part-time, full-time), description (requirements, conditions of the offer), thematic labels of *Domestika*, and gross annual salary. In addition, the offers have been grouped into four main categories, which allow for a comparative analysis of the following sectors:

- Offline and online advertising: Advertising and PR, marketing, social networks, journalistic and advertising writing.
- Web development and software: Website design, front-end and back-end programming, software development, BB. DD., app development.
- Design: Graphic design, industrial design, interiors, fashion design, architecture, photography.
- Audiovisual and videogames: video editing and postproduction, 2D and 3D animation, video game development, and films.

Of the 1,134 job offers analysed, more than half are part of the Advertising sector (36.95%) and Web/Software (36.68%), while the sectors of Design (19.66%) and Audiovisual (6.70%) account for a third of the offers. Analysis of each of the job offers was carried out through a selective search of combined phrases and keywords with a subsequent process of manual verification performed by peers for the exceptions. For example, those job offers where the terms “English” are not associated with “language” or “speak” are specifically analysed to check if one of the requirements of the profile is to speak English. We have opted for this type of mass content analysis to avoid the usual epistemological bias in this type of study.

Job offers represent a type of communication that implicitly entails complexity where “the de-contextualization of important elements” is a frequent problem (Schroder, 2014: 157), so that the depth of analysis of these contents is usually at odds with the study of a large number of cases. As an alternative, in some studies the representative sample is analysed with statistical tools, but this is also complemented with content analysis where the description of cases acquires a fundamental role. These particular cases either exemplify what the statistical analysis describes or are exceptional elements of interest for research, as Della Porta and Keatings point out in the following statement:

“If we are interested in detailed explanations and generalizations about what is the cause of what, it is convenient to isolate variables and examine their effects in different cases. If we are interested in the context and the complexity of the results, the complete cases allow for a better understanding. In this way, one approach partially explains the results in a large number of cases, while another explains almost the entire result in a small number of cases” (Della Porta and Keatings, 2013: 15).

Therefore, with the analysis of mass content, we have tried to avoid the tendency to extrapolate some of the job offers, or in other words some specific cases, as significant or generalized, even when they statistically represent the median or arithmetic mean of the sample. In order to study in a comparable way the remuneration of the published offers, we will analyse the salary of the 347 full-time employment offers that have accessible information. Of these, we will consider the subgroup of best-remunerated offers, which consists of the 119 offers that exceed 25,000 euros of gross annual salary, and the subgroup of lowest paid offers, with 228 offers between 10,000 and 25,000 euros in gross remuneration. We will use the Chi-square statistic test to determine if the differences observed between the different groups are statistically significant.

3. Results

3.1. Quality of job offers in communication and design

The figure of 16.49% of all offers analysed are internships or scholarships, with considerable weight held by the Advertising sector, which in absolute terms includes 41.18% of these offers. However, in relative terms, the Design sector stands out (see Table 1), with 22.42% of its offers destined for internships.

Table 1. Some quality factors of job offers in the communication and design sectors

Sectors	Total frequencies (n=1.134)	Internship offers (n=187)	% of the sector	Temporary / part-time job offers (n=105)	% of the sector	Offers with unspecified salary (n=533)	% of the sector
Advertising	419	77	18.38 %	39	9.31 %	208	49.64 %
Web/Software	416	46	11.06 %	21	5.05 %	190	45.67 %
Design	223	50	22.42 %	38	17.04 %	95	42.60 %
Audiovisual	76	14	18.42 %	7	9.21 %	40	52.63 %

Source: author-created

As for other non-standard work formats, such as temporary, part-time or project work, these represent 9.26% of the total offers. However, the Advertising sector once again stands out in these types of job offers in absolute terms with 37.14% of the total, while the Design sector has the highest relative percentage, specifically with 17% of its offers coming from this type of format. Despite this situation, the Design sector is the least opaque with regard to informing interviewees before the job interview of the salary to be received, with 42.60% being offers in which salary is not indicated. In the Audiovisual sector, that amount rises to 52.62% of the published job offers.

Finally, there is one more element in the analysis of types of job offers, which may have some connection to the quality of the work offered. The figure of 109 job offers, 9.61% of the total analysed, point out that the job will be carried out by teleworking. In this case, the Audiovisual block is the one that shows a greater relative percentage of this type of work, standing at 16% of its offers, compared to 8.52% of the Design block, 9.83% of the Web/Software block, and 8.83% of the Advertising block.

This is especially interesting, as we usually associate tasks related to the audiovisual sector with powerful machines in studios, which might indicate a change of trend in the way of audiovisual production, 3D animation or video games.

When comparing the teleworking factor with the previous ones, we observe a direct relationship between this type of work and part-time or temporary job offers. Some 25.71% of temporary or part-time offers are carried out by teleworking, while the combined sum of full-time jobs and those that openly show the annual salary, this percentage drops to 2.88%. This might indicate that the standardization of telecommuting as a formula for employment in the sectors closest to the Internet is not yet a tangible reality.

3.2. Better paid job offers in communication and design

Of the 347 full-time offers that clearly mention the salary, approximately half (48.41%), belong to the Web/Software sector. However, this block of offers also stands out as the best paid, with 25,075 euros in average annual salary, compared to 20,611 euros in the Advertising sector, 19,488 in the Design sector, and 17,620 in the Audiovisual sector. In fact, when analysing the 119 job offers that provide a remuneration exceeding 25,000 euros gross per year, there is a big difference between the Web/Software sector and the rest: with 25.15% of this type of job offer, this sector is far ahead of the Advertising sector (5.01%); Design (4.04%) and Audiovisual sector (1.32%).

In the Web/Software block, the highest-paid job offers are associated with classic profiles such as senior programmers of languages such as Java or PHP, but also with full-stack development work or those related to the User experience (UX) and with mobile telephony (especially developers of iOS or Android). In the Advertising block, the highest paid offers reflect a wider variety of jobs, with special weight given to the post of Digital Marketing Manager and Digital Media Manager. Linked to these profiles, jobs such as Senior Metrics Analyst or SEO-SEM positioning specialist appear. The highest-paid job offers in the Design block are for directors and coordinators of design departments, and those of the Audiovisual block are for video editing and post-production effects.

3.3. Characteristics of the best-paid profiles in communication and design

We have already shown that the results confirm the digital environment as one of the key factors in professional opportunities in the field of communication. For this reason, direct references to the Internet and digital communication traverse all of the four major blocks into which we have organized job offers. Thus, 66.1% of the total offers analysed are connected to the Internet, with special emphasis on the Web/Software block: 79.71% of the offers in this block refer to the Internet, compared to 67.06% from the Advertising block, 27.92% of the Design block, and 4.30% of the Audiovisual block. The increasingly widespread role of online marketing and new types of digital advertising, especially in social networks, create a situation in which employment offers from the Advertising block refer mostly to Internet. Moreover, although the same reference in the Audiovisual block is much smaller, some job offers refer to creating videos for YouTube and other social networks.

For example, an offer of “Motion Graphics (After-effects and Cinema 4D)” for the development of apps, states that “the videos will be uploaded to our YouTube channel, so it would be necessary to work quickly to have at least 1 video per week”.

However, this Internet focus does not seem to be a key element when it comes to establishing the best-paid profiles in the communication and design blocks. Thus, the link between the professional profile and the tasks of Social Network management (see Table 2) is significantly higher ($p = .001411$) in the lowest paid job offers (<25,000 euros) than in the highest-paid jobs (> 25,000 euros). Other professional features linked to the Internet, such as knowledge of Google Analytics, Google Adwords, SEO or Community Manager, do not show significant differences ($p > .05$) between the highest-paid and the lowest-paid jobs.

However, among the 119 job offers with a remuneration exceeding 25,000 gross euros per year, there are several specific profile demands, which allow for the portrayal of a new professional scenario in the field of communication and design. In addition to the predictable factor of English knowledge, the best paid job offers are linked to big data and data mining, front-end and back-end development (full-stack), user experience (UX) and app development.

Table 2. Chi-square statistic X^2 of some key features in the highest-paid profiles

Feature included in the profile	Better-paid frequency (n=119)	Worse-paid frequency (n=228)	X^2	<i>P-value</i> ($p < .05$) ($p > .05$)
Big Data	21 (12)	14 (23)	11.4154	.000728
Full-Stack	10 (4.46)	3 (8.54)	10.8922	.000966
Social Networks	11 (21.95)	53 (42.05)	10.1911	.001411
English	61 (49.73)	84 (95.27)	6.6823	.009737
UX	23 (15.43)	22 (29.57)	6.4896	.010851
Adobe	16 (24.01)	54 (45.99)	5.0902	.024061
Apps	14 (8.92)	12 (17.08)	4.7683	.028988

SEO	17 (20.58)	43 (39.42)	1.1438	.284846
Community	3 (4.8)	11 (9.2)	1.0716	.300583
Google Adwords	10 (10.97)	22 (21.03)	0.1450	.703408
Google Analytics	10 (9.95)	19 (19.05)	0.0005	.982149

Source: created by the authors

Knowledge of English is significantly linked ($p = .009737$) to the best-paid offers, but in two ways: not only because it is a requirement of the profile, but also because the advertisement itself is written in English. Thus, 24.37% of the best-paid job offers are written directly in English, compared to 9.09% of the lowest-paid offers. On the other hand, when analysing the characteristics linked to the lowest-paid job offers, in addition to the reference to Social Networks, we observed the skills in some of Adobe's programs as a significant factor ($p = .024061$). This might be explained by the technical nature of this knowledge, especially in the case of programs such as Adobe Photoshop, a tool that could be considered essential in any work related to graphic design.

4. Conclusions

Digital communication and the Internet no longer seem to be synonymous with well-paid work, and many of the jobs that arise in areas such as social media marketing are considered low-skilled. The exception in this field are profiles such as Digital Marketing Manager and Digital Media Manager. In the same way as the block of jobs linked to Design (graphic design, industrial design, interiors, fashion design, architecture, photography), senior profiles of team management and department coordination are among the best-paid.

Therefore, we have observed a certain amount of professional standardization of the Community Manager, with this profile being integrated into the communication strategies of a large number of companies. Jobs in social networks are better-paid only when they are associated with management of digital communication strategies or big data knowledge, an example of which is metrics management.

In summary, job offers that stand out as the most attractive in the market continue to include profiles of Internet-oriented developers. Among the highest-paid job offers are senior profiles related to the programming of some Internet-focused languages, such as Java, PHP, JavaScript, MySQL, XML or Python. In addition, however, there are direct references to Frameworks such as Symfony, AngularJS, VueJS, Rails or Django.

Also included among the highest-paid jobs are developers of mobile applications, data management (from database programming to data mining metrics), and user experience (UX). However, the job profile that stands out the most is the full-stack developer who is able to integrate both front-end and back-end in his or her work. In spite of this situation, the idea of the full-stack professional profile acquires a more complete and complex sense when we extend it to other areas of digital communication where profiles with this systemic perspective, which combines the client side with the infrastructure that supports different services, have become indispensable.

An example of this development in two opposite yet complementary directions would be those professional profiles that combine user experience (UX) with database management (statistics, data mining, and big data). These characteristics, specifically, are some of the most valued in the best-paid professional profiles.

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