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Adaptation of official education and continuing professional development in the field of Communication

Hipólito Vivar-Zurita [CV] [] [] Professor at the School of Information Sciences, Complutense University of Madrid (UCM) / hvivar@ccinf.ucm.es

Alberto García-García [CV] [] [] Associate Professor at the School of Information Sciences, Complutense University of Madrid (UCM)
algarci@ccinf.ucm.es

Abstract: One of the least studied aspects of the education of communicators is the complementarity between the official vocational and university studies and the private, continuous training developed in the commercial sector. Simultaneously, the functions and responsibilities of communication professionals increase without the adequate training. These shortcomings, which are the result of the inadequacy of the educational programmes of the traditional education system to the new labour market, has forced companies to respond, not always correctly, to the changes in the productive system and the classification of job positions. By way of conclusion and based on the results of a case study, this article offers a set of proposals to face the new occupational typologies that reflect profound transformations in the functions and tasks developed in the field of communication studies, research and work.

Keywords: Education; professional profiles; research; university; commercial sector.

Translation by **Cruz-Alberto Martínez-Arcos, M.A.** (University of London)

1. Introduction

As Martínez-Nicolás (2009) has indicated, education in communication has always been pursued by two groups: "On the one hand, those graduates and postgraduates who decided to pursue an academic career from the beginning; and on the second hand, a majority of communication professionals who became attracted to the university world during a recruitment process aimed at satisfying the growing supply

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and demand of communication studies since the mid-1980s". This research focuses on the need to coordinate the efforts made in commercial sector and to adapt university education to the current needs of the labour market.

Thus, the majority of audiovisual media companies, both private and public, have objective elements that allow their workers to develop a professional career. An examination of the criteria for career promotion in the private sector has showed that they are practically non-existent or too ambiguous so that decisions about promotion are completely left to the criteria of the company. Faced with this situation, which provokes perceptions of discretion and demotivation, it is necessary to put into practice objective promotion criteria that are actually known and agreed upon by both parties, otherwise there is no possibility for real career development.

The constant changes and transformations experienced by the audiovisual media have led them to adapt the traditional rigid structures to more advanced and flexible systems that allow facing the current challenges in human resources. All this has forced le leaders of the organisations to establish systems and processes that are adequate for the structures produced by the new business models in the television industry and the emerging audiovisual dynamics in general (García, 2007).

However, in order to preserve the potential for career promotion and development and vocational training, which are specific objectives of this article, we feel obliged to warn the reader about the difficulties and potential dangers of the incorrect application of the change in job classification, of which abundant examples already exist in the sector (see annexes). Consequently, the new professional typologies must be designed based on a broad, voluntarily and firm consensus and must be gradually implemented during a reasonable transitional period.

In addition, the people in charge of executing this change should avoid at all costs making workers believe that this change may involve cuts in the existing job categories and the corresponding salaries or an unreasonable postponement in career promotion. In short, any system oriented to encourage creativity and innovation will fail to be effective however good it is, if it is implemented in a climate of frustration and rejection towards change.

To be more precise, we should take into account the fact that in the 21st century the audiovisual media have been affected by great changes produced by the process digitisation. As confirmed by the report of the Spanish *Fundación Telefónica* (2008) on Journalism in the Internet era ("Periodismo en la era de Internet"), digitisation has affected all stages of the communication process in television, from creation to post-production and broadcasting, with identified consequences in each of these stages. As a consequence of all this, there have been and there will continue to be profound

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changes in: the production processes of television, especially content production and management; the communication platforms and techniques; the professional profiles; programming; and the role of the audience.

On the one hand, these technological transformations have simplified work processes, but have also deepened and complicated the relations between creativity and technology. On the other hand, there has been a rapid obsolescence of professional profiles, with the emergence of new competences, which are sometimes essential to take advantage of the new technological devices.

These extreme situations warn us not to use too closed and static job classifications, which would hinder the adaptability of the internal processes through excessive bureaucratic inertia. Therefore, it is urgent to combine the job classifications with principles of versatility, adaptability and multi-functionality across the productive organisation (García-Avilés, 2006). These principles should be applied in continuing professional development (CPD) or continuing professional education (CPE), as well as in the promotion and development programmes of each department and production system.

For these reasons, and the previous arguments about the importance of the permanent and motivated creativity in the organisation of television production, we believe that Promotion and Development (P+D) is the key for success in human resources.

2. Method

The method chosen as most useful for this research is the case study. The objective is to identify and explore the new training needs in the field of communication based on the job categories listed in the National Catalogue of Professional Qualifications (*Catálogo Nacional de Cualificaciones Profesionales*), which is produced by the Spanish Ministry of Education and Science's National Qualifications Institute (*Instituto Nacional de las Cualificaciones* - INCUAL). This catalogue is the main reference used by Spanish companies to establish recruitment criteria.

Data collection and analysis was conducted in order to be able to provide, as Yin (1994) has proposed, an objective case study and reach feasible and applicable conclusions,

3. Hypothesis

The future outlook is defined: communication graduates' training deficiencies, which have resulted from the inadequacy of the educational offer of the traditional and official education system in relation to the needs of the industrial sector where graduates have to exercise their functions, encourage people from other professions to

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perform jobs outside the scope of their formal qualifications, which contributes largely to the devaluation of the role of the communication professional.

Therefore, it is urgent for the education system to meet the needs of the new job categories, which involve profound transformations in the functions and tasks developed in the field of communication studies, research and work. In addition, in order for communication graduates to become adapted to the continuous mutation of the professional profiles related to the Information Society, it is advisable to develop broad cooperation frameworks between the professional and educational sectors.

4. Results

4.1. Certification and accreditation of professional competences

For companies, certification is a way of assessing workers' competences, which allows establishing training strategies tailored according to the individual and corporative needs. One of the procedures used for the worker to acquire the competences needed to cope with the changes in the labour market is the certification of his competences; the set of procedures to recognise, assess and accredit the professional competences acquired through vocational experience or any other type of non-formal learning.

In recent years, several factors have justified professional certification as one of the central themes of the debate in the field of education and work. Assessment and accreditation should be supported by the company, which should recognise workers' competences in a formal and objective manner, regardless of where and how they were acquired.

Professional certification should facilitate labour mobility, and ensure equality of opportunity in employment access and maintenance, regardless of the company for which the professional works for. Accreditation of professional competences should be developed according to criteria that ensure the reliability, objectivity and technical rigor of the assessment. The Spanish National Catalogue of Professional Qualifications should serve as an objective reference in this procedure.

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Table1: Professional Family: Image and Sound. Level 3.

IMS074_3	Assistance in television production	Royal Decree 295/2004 - 1200/2007
IMS075_3	Lighting in live shows	Royal Decree 295/2004 - 1200/2007
IMS076_3	2D and 3D animation	Royal Decree 295/2004
IMS077_3	Assistance in television production	Royal Decree 295/2004
IMS220_3	Assistance in the direction of cinematographic and audiovisual works	Royal Decree 1228/2006
IMS221_3	Assistance in the production of cinematographic and audiovisual works	Royal Decree 1228/2006
IMS294_3	Camera work in cinema, video and television	Royal Decree 1200/2007
IMS295_3	Development of interactive, multimedia and audiovisual works	Real Decreto1200/2007
IMS296_3	Editing and postproduction of audiovisual works	Royal Decree 1200/2007

Source: Author's own creation based on data provided by the Spanish National Qualifications Institute (*Instituto Nacional de las Cualificaciones* - INCUAL).

One of the main problems in the study of certification is the identification of an assessment model that allows the certification of the competences by assuming that the certification is the final outcome (summative evaluation) of the continuous assessment of the qualifications developed through training programmes received outside and inside the labour environment.

This certification model should properly define the evaluation's object, instruments, agents, methods and criteria.

If the worker fails to meet all the qualifications required for any vocational training diploma or certificate of professional standards, the worker receives a cumulative partial accreditation, according to a professional view of the accreditations (Muñoz, 2008). Thus, if desired, the worker may complete his or her training to obtain the corresponding title or certificate.

4.2. Training for the television of the future

The advance state and convergence of the current technology allow the reception of hundreds of television channels through cable, satellite or terrestrial broadcasting systems. The signal of these television channels can offer added value and interactive

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services, which can be accessed through the remote control, such as electronic banking, teleshopping, or booking services. Other services may also be offered through the same network infrastructure, such as telephony and broadband internet access.

The future prospects are spectacular, especially in relation to the Internet and its interactivity with the user. There is a large number of television channels that are streamed, in low-definition, through the World Wide Web. There can be as many television channels as there are websites in the Internet. In few years, Internet Protocol Television (IPTV) will be totally viable, with the only limitation being the maximum number of simultaneous accesses to a specific website containing a television channel.

The integration of television and internet will allow them to share the same reception screen and the same navigation device. Moreover, 3G technology also enables the reception of video images and the universal reception of television in the screens of mobile devices and phones.

The current almost unlimited access to TV channels through different platforms strongly disrupts the market and industry of television. The offer of television channels has gone from a few mainstream signals to a large number of digital thematic channels. This new situation has led to the increasing specialisation of channels and the segmentation of the audience, to provide a better offer of channels to an increasingly demanding audience. There will be a cross between vertical and horizontal channels (themes and shared audiences, respectively), where the contents have to be abundant, varied and usable.

Digital technology and internet will enable the cheap broadcasting of these channels. It will be necessary to have enough audiovisual contents and a diversity of sources, and to store them in a site where they can be easily accessed, advertised, sold and reused. In summary, the major current challenge for multimedia and audiovisual companies is to develop the ability to reuse the content they produce or buy.

The multiplicity of television channels and radio stations, which are already counted in hundreds, and the massive creation of websites, of which millions are launched every day, divide the broadcasting revenue into many broadcasters and force producers to lower the production costs. The only solution is to archive contents efficiently to be able to reuse them with other approaches, by adapting them to the different platforms and commercialising them as many times as necessary.

In the areas more linked to technology, the emergence of new digital, computer-based and robotic tools in almost all fields and job categories increases training needs. In the audiovisual media sector, there are three main trends regarding training:

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- Recycling of traditional tasks in light of the digitisation of the media
- Radical changes to the existing professional profiles, and
- Emergence of new, not yet universally defined profiles

4.3. Recycling of traditional tasks in light of the digitisation of the media

- In the field of production, direction and creation: Needs are articulated particularly in the creation stages of different types of programmes, new image and post-production technologies, and multiplatform interactive contents.
- Camera, sound and lighting technicians: Their main training needs are in relation to the use of new audiovisual formats (HD, multichannel sound, and special lighting effects for different media).
- In the area of editing and mounting: Continuous updating is basic in non-linear editing, digital storage, and 2D and 3D effects programs.
- Graphics and post-production technicians: courses in computer graphics, modelling and animation, interactive applications and virtual sets.
- Creative writers, editors, and journalists in general: the core subjects are still script writing, audiovisual language, interactive and multiplatform production, and use of internet tools for the exploitation of TV content.

4.4. Radical changes to the existing professional profiles

The following tasks in the production and management of audiovisual and multimedia contents are offered at the moment on the market, but logically they will be redefined in the coming years, as they require specific training:

- Digital pre-production and production of contents (audio, video, photos and texts) with varying compression formats depending on the requirements of the different multimedia platform.
- Digital mounting and editing in compressed formats of audio, video, photos and texts, separately and jointly. This point includes the digital recording and processing of information with portable cameras and editing software for immediate release of finished products.
- Delivery of finished multimedia products through (terrestrial and satellite) telecommunication networks.
- Identification and classification of raw or edited audio, video, photos and texts. Classified contents are organised with descriptive labels and stored in databases.

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- Low resolution coding of video signals to occupy less storage space and allow its recording in low-capacity storage devices.
- High resolution, broadcast quality, video coding and storage in high-capacity video servers.
- Access to databases from the workstation, for the search and selection of footage, with the ability to download low-definition content from the servers to the workstation's hard drive.
- Offline editing of the selected raw footage from the workstation and generation of an edit decision list (EDL) for the subsequent editing in high definition.
- Emailing of the EDL to the high-definition servers or to more sophisticated editors for the final high-definition editing of the audiovisual product and its delivery to the television stations.
- Editing and delivery, via computer network, from the workstation of finished images, audio and texts for their use in radio, teletext services, website and press.
- Automatic classification and documentation of new products for their storage for later reuse.

4.5. Emergence of new, not yet universally defined professional profiles

The current technology allows the identification, interpretation and evaluation of the available media in the contents industry, which has the following characteristics:

- Creation of a single product and creation of different versions depending on the different clients.
- Exclusive production of content for multimedia use.
- Differential treatment of the product depending on the platform
- Conservation of footage and products for reuse and re-marketing
- Concentration of shared technical equipment and resources.
- Use of a single workstation with different applications depending on the product to be edited.
- Reduction of investment due to shared use.
- Optimisation of exploitation costs: same contents repeatedly used and reused.

In recent years, technological changes have influenced the development of television and video content over the Internet and mobile devices and the exploitation of these new technologies requires specific training.

- The transformation and integration of television over the Internet: On demand television in any computer connected to the Internet, with thematic searches, in communities and even P2P networks for audiovisual downloads.

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- The Youtube model, the citizen's television: Television as a platform that generates virtual communities, where the user becomes the broadcaster and exchanges videos with other users, following the philosophy of Web 2.0.
- New IPTV models: IPTV is taking important steps in the generation of new applications which in many cases represent the link between the contents of traditional television and the possibilities of the World Wide Web.
- Video blogging (sometimes shortened to vlogging): A vblog is personal, experiments with the existing audio and video technology, and is based on writing and television.
- Television and video content on mobile devices (such as mobile phones, laptops, PDAs, and GPS navigation systems): Study of the factors involved in these new business models from the perspective of technology, of consumption habits, and the variety of interactive content offered in these new technologies.

5. Conclusions

With the aim of offering a useful instrument for reflection for communication scholars and professionals who are witnessing important changes in the audiovisual media industry, this article offers the four conclusions and proposals:

1. The effects of the current crisis in the traditional profiles should highlight not only the risks and dangers, but also the opportunities to correct mistakes and shortcomings in the training and employability of communication professionals and, ultimately, in the operation of the audiovisual media system. The keys of this process are the overcoming of a false choice between theory and praxis; the capacity to adapt to new challenges; the constant and dynamic mutation of competences; the promotion of creativity, the innovative capacity and entrepreneurship; and the creation of new synergies and partnerships.

2. A rigorous diagnostic of the situation must consider, among other factors, the incidence of the technological transformations (analogue blackout and digital development, fragmentation of operators and communication channels, convergence of media and screens, increased interactivity, and rethinking of the system's financing and economy) in the processes of production, circulation, and reception of signals.

3. This new scenario already outlines new professional profiles that require new knowledge, competences, abilities, attitudes, skills and values**,** which have to be provided by the educational system, especially the companies' training plan. However, we should not rule out other necessary complements that are provided by properly regulated professional practices or by self-teaching and constant updating. Already in 2001, the following conclusion was offered by

the *Skills for Tomorrow's Media* report (Laughton: 2001): "Skillsformedia should work with and through employers, industry bodies and other public agencies to establish appropriate partnership arrangements to provide a promotion, signposting and referral service for publicly available employer-produced careers resources".

4. In addition to the previous points, the transformations of the tasks developed in the field of communication, due to their close relationship with the Information Technologies and the Knowledge Society, demand comprehensive collaboration frameworks with prestigious institutions, from a multidisciplinary, professional and university point of view.

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7. Annexes

UPPER-LEVEL TRAINING CYCLES	PROFESSIONAL MODULES
IMAGE (2000 HOURS)	• Photographic image (280 hours) • Photographic applications (270 hours) • Lighting of scenic spaces (260 hours) • Audiovisual image (230 hours) • Administration, management and marketing in small companies (95 hours) • Quality management in photographic and film processing and treatment (95 hours) • Photographic and audiovisual media (130 hours) • Visual communication media and languages (130 hours) • Relations in the workplace (65 hours) • Training in the workplace (380 hours) • Vocational training and orientation (65 hours)
EXECUTIVE PRODUCTION OF AUDIOVISUAL CONTENT, RADIO SHOWS AND STAGE PERFORMANCES (2000 HOURS)	• Film and video executive production (290 hours) • Television executive production (270 hours) • Radio executive production (190 hours) • executive production of stage performances (240 hours) • Audiovisual technical equipment (150 hours) • Scenic and audiovisual languages (150 hours) • Management and promotion of audiovisual and radio productions and stage performances (200 hours) • Relations in the workplace (65 hours) • Training in the workplace (380 hours) • Vocational training and orientation (65 hours)
PRODUCTION/DIRECTON OF AUDIOVISUAL CONTENT AND STAGE PERFORMANCES (2000 HOURS)	• Film and video production (290 hours) • Television production (270 hours) • Multimedia production (260 hours) • Editing/mounting and post-production of audiovisual content (260 hours) • Stage performances and shows (130 hours) • Technical production systems (130 hours) • Audiovisual communication and expression (130 hours) • Relations in the workplace (65 hours) • Training in the workplace (380 hours) • Vocational training and orientation (65 hours)
SOUND (2000 HOURS)	• Sound in audiovisual productions (265 hours) • Radio (265 hours) • Musical recordings (205 hours) • Industrial and stage-performance sound installation (150 hours) • Sound post-production (210 hours) • Administration, management and marketing in small companies (95 hours) • Sound systems and technical equipment (150 hours) • Audiovisual communication and sound expression (150 hours) • Relations in the workplace (65 hours) • Training in the workplace (380 hours) • Vocational training and orientation (65 hours)

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COURSE NAME	MODULES
IMAGE EDITOR (540 HOURS)	• Introduction to the audiovisual media (50 h) • Video signal (50 h) • Audiovisual narrative (120 hours) • Recording and reproduction with audio and video professional equipment (60 h) • Sound in editing (80 h) • Video mixing and effects (80 h) • Editing techniques (100 h)
SOUND TECHNICIAN (665 HOURS)	• Introduction to the audiovisual media (50 h) • Principles of sound (30 h) • Sound pickup, treatment and recording (120 h) • Sound in broadcasting (60 h) • Sound in reproduction of audiovisual content (120 h) • Sound in record productions (60 h) • Sound (100 h) • Sound postproduction (100 h) • Safety and hygiene in audiovisual productions and stage performances (25 h)
AUDIOVISUAL TECHNICAL (525 HOURS)	• Video signal (50 h) • Principles of sound (30 h) • Industrial video camera (60 H) • Audio and video recording, processing and reproduction (100 h) • Introduction to composition and audiovisual narrative (60 h) • Editing of images in industrial video (80 h) • Basic soundtrack addition (60 h) • Projection systems (60 h) • Safety and hygiene in audiovisual productions and stage performances (25 h)
PHOTOGRAPHER (790 HOURS)	• Principles of photography (50 h) • Photographic camera (100 h) • Lighting in photography (100 h) • Photographic composition (100 h) • Photographic genres (160 h) • Photo developing techniques (80 h) • Black & white and colour copying of photographic material (150 h) • Photographic process (40 h)
CAMARA OPERATOR (565 HOURS)	• Introduction to the audiovisual media (50 h) • Video signal (50 h) • Video, film and TV cameras (100 h) • Recording and filming techniques for cinema, video and TV (120 h) • Recording techniques for operations in light of recording (140 h) equipment • Control techniques and analysis of recorded material (80 h)

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