



Teachers' work in the era of digital governance: a qualitative study¹

El trabajo del profesorado en la era de la gobernanza digital: un estudio cualitativo

M. ISABEL PARDO BALDOVÍ

Universitat de València, España

<https://orcid.org/0000-0002-8630-0818>

ÁNGEL SAN MARTÍN ALONSO

Universitat de València, España

<https://orcid.org/0000-0003-3565-4250>

JOSÉ ELISEO VALLE APARICIO

Universitat de València, España

<https://orcid.org/0000-0003-0254-0062>

Abstract:

The emergence of digital technologies and the implementation of digital governance in the educational system raise important challenges for teachers. In this scenario, this paper is intended to answer the following question: are digital governance reinventing teachers' work? The study is based on a qualitative multi-case analysis in 4 schools in Spain, within the framework of a funded research project, carried out through interviews with teachers and students, discussion groups with families and participant observation in classrooms. The results suggest that the implementation of digital platforms and the logic of governance that accompanies them, are causing significant transformations in teachers' work, reflected in four dimensions: the dissolution of teaching functions,

Resumen:

La aparición de las tecnologías digitales y la implantación de la gobernanza digital en el sistema educativo plantean importantes retos al profesorado. En este escenario, este trabajo pretende responder a la siguiente pregunta: ¿está la gobernanza digital reinventando el trabajo de los docentes? El estudio se basa en un análisis cualitativo de casos múltiples en 4 centros educativos de España, en el marco de un proyecto de investigación financiado, realizado mediante entrevistas a profesores y alumnos, grupos de discusión con familias y observación participante en las aulas. Los resultados sugieren que la implantación de plataformas digitales y la lógica de gobernanza que las acompaña, están provocando transformaciones significativas en el trabajo docente, reflejadas en

1 Cómo referenciar este artículo (How to reference this article):

Pardo Baldoví, M. I., San Martín Alonso, A. y Valle Aparicio, J.E. (2025). Teachers' work in the era of digital governance: a qualitative study. *Educatio Siglo XXI*, 43(3), 197-218. <https://doi.org/10.6018/educatio.632961>

the delegation of responsibilities, the fragmentation and intensification of tasks and the focus on productivity and goal attainment from a technical and deregulated perspective.

Key words:

technology; digitization; teaching practice; teaching profession.

cuatro dimensiones: la disolución de las funciones docentes, la delegación de responsabilidades, la fragmentación e intensificación de tareas y la focalización en la productividad y consecución de objetivos desde una perspectiva técnica y desregulada.

Palabras clave:

tecnología; digitalización; práctica docente; profesión docente.

Résumé:

L'émergence des technologies numériques et la mise en œuvre de la gouvernance numérique dans le système éducatif posent d'importants défis aux enseignants. Dans ce contexte, cet article vise à répondre à la question suivante : la gouvernance numérique réinvente-t-elle le travail des enseignants ? L'étude est basée sur une analyse qualitative de cas multiples dans 4 écoles en Espagne, dans le cadre d'un projet de recherche financé, réalisé par le biais d'entretiens avec les enseignants et les élèves, de groupes de discussion avec les familles et d'observations participantes dans les salles de classe. Les résultats suggèrent que la mise en œuvre de plateformes numériques et la logique de gouvernance qui les accompagne entraînent des transformations significatives dans le travail des enseignants, reflétées dans quatre dimensions : la dissolution des fonctions d'enseignement, la délégation des responsabilités, la fragmentation et l'intensification des tâches et l'accent mis sur la productivité et la réalisation des objectifs d'un point de vue technique et déréglementé.

Mots clés:

technologie; numérisation; pratique de l'enseignement; profession d'enseignant.

Fecha de recepción: 11-10-2024

Fecha de aceptación: 22-07-2025

Introduction

Beyond schools' connectivity or their degree of implementation of technological equipment, the educational environment is surrounded by narratives that legitimize structural changes in the organization (Mountford & Geiger, 2020). These narratives intend to avoid the double link that dominates the relationship between technologies and school institutions—and every other organization—today. These narratives associate recurring concepts such as quality, innovation, productivity, and digital management (Yelicich, 2019).

The recent academic literature stated that teachers need to be trained following the "influencer" pattern (Ruiz Domínguez & Area Moreira, 2021). This role of educational influencer appeals to a teacher who en-

hances his digital identity, who generates content on the web with the aim not so much of transmitting knowledge as of improving his status and reach, an individual who devotes time and effort to promoting his impact and visibility in the digital world. This role is even promoted through teacher training MOOCs offered by the Spanish Ministry of Education.

These discourses, promoted by certain forums and focused on some of the constituent aspects of school organizations, have an undisputed impact on day-to-day classroom life and on the conditions under which teaching work takes place. This dynamic has also been analyzed as part of a broader neoliberal reconfiguration of professional roles, where teacher identity and autonomy are progressively contested (Luengo Navas & Molina-Pérez, 2019). Aspects such as these are leading to a transformation—in the collective imagination and also in practice—of what a “good teacher” or a “good student” is considered to be (Roberts-Holmes, 2015), as well as the role and tasks to be carried out in the teaching and learning process (Pardo et al., 2022). This shift also involves new approaches to classroom practices, including more collaborative, student-centered, and maker-based methodologies that reframe the role of teachers and students alike (Blikstein, 2018; Gallardo Fernández et al., 2020; Vuopala et al., 2020).

As a space, classrooms are part of the organizational structure of a particular school and of the general education system. This circumstance implies that teaching practice in a particular school is conditioned by external narratives and interests, which constitute the ecosystem in which teachers carry out their daily work. This digital ecosystem is increasingly governed by symbolic exchanges and networked interactions that redefine labor visibility and emotional exposure (Lara, 2018). It should be clarified that in this educational context, the term ecosystem refers not to its biological origin, but to the complex and dynamic interaction of institutional, social, political, and cultural factors that shape the conditions and expectations surrounding teaching and learning. This is the case regarding the use of digital platforms in the everyday cultural context and of the management logics prevailing in the public sphere (Santori, 2016). In this sense, these narratives are also surrounding the school context and the teachers' work, leading them towards important transformations.

With the aim of studying these issues in greater detail, this paper deals with how teachers reinterpret and internalize both their professional function and the tasks they must perform in the classroom in the light

of the use of digital platforms. This process is carried out following the requirements emanating from the aforementioned narratives, that present the platforms as innovations (Awidi & Paynter, 2024; Chalkiadakis & Noguera, 2024), but whose purpose is to equalize the state and corporations based on the postulates supported by governance (Erkut, 2020; Franco-Santos et al., 2017). Such logic presents requirements not as formal imperatives, but rather as “facilitators” of the teaching practice (Ball, 2015). Based on this reality, the following questions arise: what does these changes consist of, how do they operate on teachers?

Organizations are experiencing profound changes related to the advanced modernity (Pardo Pérez & García Tobío, 2003), where governance and managerialism through digital platforms constitute global trends (Antunes & Viseu, 2019; Hase & Kuhl, 2024; Manoharan et al., 2023). While in previous periods they were developed as technically rational and considered effective, robust, and transparent, organizations are now considered to be weak, flexible, and complex because they have to “manage complexity, conflicts, and change” (Touraine, 1993, p. 232). Under this new understanding, and with productivity still as the most critical objective, the idea of governance emerged in the organization of producers of goods and services and was gradually imported to the field of educational systems (Gunter & Fitzgerald, 2013).

According to the OECD, governance in public organizations contemplates at least the following three dimensions: capacity building, accountability, and strategic vision (OECD/CERI, 2015). These dimensions can be identified quite clearly both in the more or less enthusiastic discourses favoring the commodification of teaching as well as those formulated by different school representatives, although not always to the same degree. In the Spanish context, this framework has been analyzed by López Rupérez et al. (2017), who emphasize the importance of governance quality and its direct impact on the performance and legitimacy of the educational system.

Based on this approach to governance and taking the micro-politics of school organizations as a reference, this research focuses on the classroom space. The work life of the teacher is developed in this environment, which is determined by a multitude of variables, not all of them easily identified, and promotes the phenomenon known as endogenous privatization, leading to the progressive creation of a quasi-market in education (Parcerisa & Verger, 2016). This is consistent with what Ball & Youdell

(2007) identified as “hidden privatization” in public education, whereby market logics are embedded in daily pedagogical practices without formal structural reforms. When teachers introduce a platform or an app for their work in the classroom, when they use corporate materials, when they adopt a performative role or measure productivity through certain procedures, they are in a way introducing privatization guidelines (Cappello, 2022).

Within the classroom, governance is reflected in many aspects, including the way the school curriculum is chosen and developed. While a few decades ago textbooks were the main device to regulate the curriculum, this has changed with the arrival of digital technologies (Williamson, 2019). This phenomenon opens up multiple questions such as the legitimacy of knowledge in the classroom, the delegation of authority, the devolution of teachers' power dynamics and responsibility, and even the monitoring of teaching and learning processes through the use of Big Data techniques. Currently, data-mining-based governance is being successfully implemented in both private and public spheres, particularly in education (Ortega, 2019). For example, schools increasingly use learning analytics platforms to collect and analyze student performance data, which in turn informs decision-making processes related to curriculum design, resource allocation, or early interventions. In schools, governance ideas can also be seen, among other ways, in the transparency of the managing bodies and in efforts to involve the different groups and representatives of the organization.

Regarding standard technologies based on techniques and artefacts established in school organizations, Ball (2003) argues that emphasis should shift from structures or practices to the reformulation of relationships, subjectivities, and new or reinvented forms of discipline. These transformations foster new identities, interactions, and values that respond to the organization's operational strategies, occurring within the micropolitics of the classroom and the broader educational center.

While the broader research problem addresses interventions in school structures, teacher practices, and management, this paper specifically explores the impact of digital platforms and the governance logic they entail on teachers' roles and work.

As Pérez Gómez (2019) highlights, the “new pedagogy” demanded by contemporary society relies fundamentally on teachers. In the digital age, teachers must embrace their identity as learning professionals, shifting

from mere transmitters of information to tutors of each pupil's learning. This change not only reassigns teaching functions but also transforms their position within organizational structures, networks of dependencies, and power relations, altering the dynamic between "the one who knows" and "the one who learns."

This phenomenon prompts critical questions: What are the organizational consequences of this role redefinition? How do different school actors receive and internalize digital platforms? Ultimately, are digital governance mechanisms reinventing teachers' work? These questions guide the analysis presented in this paper, framed within a broader research project.

Methodology

A qualitative multi-case study research (Stake, 1995) was developed as part of a project with reference X, funded by the valencian government. It can serve as a miniature model in order to study the effects of the introduction of policies based on governance logic and digital platforms in the day-to-day management of classrooms. Globalization is prompting educational reforms that end up imposing similar dynamics and very similar norms, values, and techniques on different school systems.

Participants

The research was carried out by conducting a multiple case study in four pre-school and primary education centers in the Valencian Community region: three state centers and a charter school. The charter school is located in a suburb of the city of Valencia, characterized by the social complexity of the area. Regarding the public schools participating in the study, one of them is in a rural context and two are located in small urban localities, near the city of Valencia.

The four schools were selected according to different criteria related to the research objectives, such as: daily use of digital platforms, schools located in various contexts and their willingness to collaborate with the research team and the University.

All four schools shared an interest in integrating digital platforms across organizational, curricular, and communication domains.

While the core of the fieldwork focused on teachers, it was essential to also consider the experiences of other educational agents—namely students and families—given their increasing involvement in school life through digital technologies. Including families allowed us to explore how digital platforms mediate communication, participation, and expectations beyond the classroom, and to gain insight into the broader educational ecosystem.

In total, 200 students (36 in interviews), 20 teachers, and 16 families participated in the research. The testimonies of students and families complemented the analysis by offering a more holistic view of how digitalization is shaping interactions and responsibilities across the school community.

Research tools and techniques

Different data collection tools and techniques were used to develop this research, with the aim of obtaining a plural view of the studied phenomena.

As the foundation for the development of the study, we first analyzed the documentation of the centers; namely, each center's educational project, their management project, their ICT plan, their annual general programming, and some of the classroom plans designed by teachers. This work followed an ad hoc analysis protocol created by the research team and validated by a group of 5 external experts with experience in the development of qualitative research in schools, focused on tracking institutional approaches in relation to management logic and working with the underlying digital technologies in the participating schools.

After this first approach, the main tool was the semi-structured interview, whose questions explored four analytical dimensions related to teaching practice: (1) Prescription, referring to the degree to which teachers' actions are guided or limited by external mandates or standardized guidelines; (2) Autonomy, understood as the teacher's capacity to make pedagogical decisions independently; (3) Focus on teaching work, analyzing whether the emphasis is placed on the product (i.e., measurable outcomes and results) or on the process (i.e., the development and dynamics of learning); and (4) Perceived professional role, which includes how teachers interpret their responsibilities and their position within the broader educational context. These dimensions allowed us to investigate

how digital governance intersects with teachers' pedagogical identities and practices.

The interviews were designed as opportunities to generate shared knowledge (Fontana & Prokos, 2016) and involved 20 participants: one per school in each of these roles: classroom tutors, specialist teachers, principals, ICT coordinators, and course coordinators. This ensured a diverse yet balanced representation of teaching and leadership perspectives across the four schools. The interview script addressed topics such as the use of technologies and digital platforms in the classroom, tasks performed with these tools, preparation time required, organizational strategies, student roles, the teacher's role when integrating technology, and the agents influencing decisions to implement digital work.

To approach the different agents, the research team conducted, on the one hand, group interviews with students from each of the studied classrooms. A total of 36 students participated in the interviews. They were asked about the activities, subjects, dynamics, and perceptions related to digital technologies in the classroom.

Furthermore, a discussion group (focus group) was organized with four families at each school, totaling 16 participants. The majority were mothers (14 participants), with only two fathers participating. The focus groups aimed to gather families' perceptions regarding the didactic use of technology in the classroom. The discussion questions included: What activities do your children carry out using digital platforms and technologies in the classroom? What roles do they adopt? How do they work? Do you think they learn more or less with these tools? What is your overall view of these resources? And what role do teachers play now?

In addition to the interviews, we conducted participant observation following the perspective of digital ethnography (Pink et al., 2016), aimed at revealing the daily use of digital platforms by teachers, as well as the organizational strategies implemented to promote their use. Observations took place in two classrooms per center, totaling eight classrooms, with approximately 200 students involved. Each classroom was observed for four full school days. As researchers, we participated as accompanying observers inside the classrooms, closely following and supporting the teacher's activities without intervening or adopting the roles of teachers or students. Detailed observation sheets were used to record the platforms employed and the practices developed by both students and teachers.

Information analysis procedure

The documents and records from the fieldwork phase were analyzed following the postulates of qualitative data processing (Gibbs, 2012). The analysis started from the complexity of the studied reality and the need to contextualize information in the environment from which it emerges.

Data from interviews, focus groups, and observations were analyzed using ad hoc matrices validated by external experts. This validation process was carried out through the detailed reading and study of the information, and the analysis through matrices and the establishment of a coding and classification system in categories and subcategories that emerged from the information collected, following the postulates of discourse analysis and conversation analysis.

As stated, a coding system was established using these matrices, based on the objectives of the research. The categorization process starts from the dimensions contemplated in the interviews. These dimensions were transferred to the matrices and used as a tool to synthesize the collected information. From the information in the matrices and the bibliographic review carried out during the study, the research group established a conceptual framework, illustrated in Figure 1.

Figure 1
Initial dimensions of the categorization process

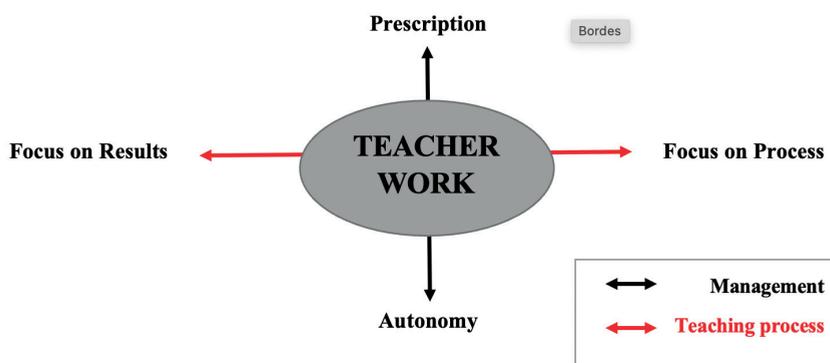


Figure 1 illustrates the four analytical dimensions structuring teacher work. The vertical axis reflects the degree of external control (prescription) versus the agent's capacity to act beyond regulation (autonomy), in line with managerial models that centralize control while decentralizing

responsibility (Pardo Baldoví et al., 2018; Pardo Baldoví & San Martín Alonso, 2020). The horizontal axis captures the pedagogical orientation, ranging from a focus on learning processes to a focus on measurable outcomes. At the intersection lies the teaching role, shaped by normative technologies and platform logics.

Results and discussion

Starting from the conceptual and methodological framework exposed in the previous sections, during the process of information analysis four categories emerged relating to different aspects of teaching: prescription, autonomy, the focus of teaching work and the characteristics of the professional role. Now, we will proceed to present and discuss the most relevant results based on these four categories. For this purpose, in some cases, direct extracts from the information collected in the fieldwork will be highlighted for illustrative purposes. In these cases the information is identified by indicating the instrument in question, as well as the lines in which the information is located.

Prescription in times of governance: the dissolution of teaching functions

In the teaching model promoted by digital governance framework, teachers abandon their traditional role as interpreter of curriculum content with the support of digital platforms (Hase & Kuhl, 2024). In the new professional context, teachers become facilitators of the access to content, as explained by one of the teachers interviewed: "I tend to use discovery learning, where the children are the ones doing the discovery... I barely explain things in class" (Interview with tutor teacher of state school number 2, l.139-141) (this annotation corresponds to the line number of the interview).

This category primarily reflects transformations in the prescription of teaching roles. Teachers move from curriculum interpreters to facilitators, a shift that illustrates how external mandates and digital platforms reconfigure their professional identity.

This phenomenon involves restructuring classroom roles so that the process does not revolve around the teacher, nor the curriculum, but around encouraging students to acquire skills to manage and develop

their own learning process through the digital platform from a maker perspective (Blikstein, 2018; Vuopala et al., 2020), based on the principles of the maker movement and DIY logic. This did not go unnoticed by the participating faculty, as evidenced in the following observation by the tutor teacher of one of the groups:

I always tell them that the starting point is the philosophy of error. They start when they find a problem. If they know how to do it, there is nothing to learn. I propose different challenges to be performed, and they have to look for the strategies to solve them. (Interview with tutor teacher of state school number 3, l. 146-150).

This situation leads to a “reversal” of roles in the centers studied, because the teaching and learning process is not conceived unilaterally, but rather can come from multiple sources and agents (Gallardo Fernández et al., 2020). It does not understand teachers only as the teaching agent and students only as the learning subjects; teachers can also learn from and along with students, and students can themselves facilitate and build learning processes with their peers.

Other teachers described similar dynamics of flattening hierarchies and co-learning with students. These excerpts show how functions become less defined and increasingly diverse. Perhaps the most significant reversal is how this change blurs the reference to the content to be taught and learned in the classroom. In the centers studied, the team observed that neither teachers nor families exercise their authority in this field, but delegate it to other sources belonging to the field of cultural industries, such as repositories, social networks, databases, robotics, etc. This even moves into the field of monitoring and control of the students' activity, which in this framework is also managed by new sources such as digital applications, as seen in the following excerpt from an interview with students:

We install an app, I don't remember the name, and we use it to review, so that the teachers didn't always have to be there. You just turned on the iPad and it gave you the solutions. We did it there, in class, we couldn't do it at home. We uploaded the photos and what we had done, and the answer and whether we were right appeared on top. (Interview with tutor teacher of state school number 2, l. 87-98).

This phenomenon of dissolution of functions and disseminating control mechanisms points, on a deeper level, to the delegation of responsibilities and new ways of shaping subjectivities (Luengo Navas & Molina Pérez, 2019). Teachers and students interact in a digital ecosystem in which the physical-geographical space loses its validity, replaced by the communicative-virtual field in which symbolic, rather than material, exchanges are fundamental (Lara, 2018).

Autonomy and delegation of responsibilities

It is also observed the emergence of new ways of exercising functions within the school organization. This affects both teachers and students and, especially, the center's management and direction. The redistribution of tasks and emergence of new roles relate directly to autonomy. While roles are diversified, autonomy is paradoxically constrained by platform logic and governance demands.

This occurs because there the new functions lead to a process of delegation of responsibilities, enhanced by the implementation of digital platforms. This context leads to the emergence of new profiles that undermine the classic functions established within the organization. Thus, new roles such as ICT coordination, innovation projects coordination, educational coordination, course coordination, coordination of the plan for transition, and the coexistence plan, emerge.

These actions manage to place the members of the organization in a specific position, through the assignment of roles and functions performed through digital platforms. According to this, in the centers studied, the management project breaks with the vertical and pyramidal scheme of previous stages and moves towards more horizontal structures and the decentralization of responsibilities, leading to the proliferation of decision-making instances, in accordance with the concept of governance. As one of the members of a management team states:

We blew up the management team from within, thanks to the fact that I was there and I realized. We weren't willing to put up with what was happening. Because in this team, they said... Can you imagine a pyramid? We are at the top and you are at the bottom. What we say, goes. And we wanted the opposite. (Interview with the Head of State School number 2, l. 29-34).

This new management logic for daily life and work is widespread among the centers studied, although it does meet some resistance. In this regard, the course coordinator of one of the centers with a very innovative educational project stated the following observation:

Outside registration is getting higher and higher. So for us it is a great support, obviously, and it helps a little to change the methodology of those who were sort of in the middle and a little resistant to change. But many families are reluctant, and some families have left because they disagreed. (Interview with the Course Coordinator of State School number 2, l. 275-282).

This affects teaching decisions in two key ways: the fragmentation of the teaching and learning process (which is typical of technocratic models) and by subdividing the areas of responsibility in relation to the objectives, the vacuum is occupied by external entities that tend to impose a goal attainment focus, since goals are easier to measure and less difficult to identify. This is what Ball & Youdell (2007) describe as endogenous privatization. As a result, roles change, as do connections and relationships, which also encourages new subjectivities focused on the product rather than on the process, and subjected to fragmentation and intensification of work, as can see below.

The focus of teaching work: Fragmentation and intensification of tasks

The aforementioned aspects change not only roles, but also the way people work, so the content is also considered from the aforementioned constructionist perspective, as evidenced in the following contribution from a teacher:

Instead of working on an additions and subtractions card, do an addition tutorial, do a subtraction tutorial. And with addition and subtraction, we have enough for the week, we do not need to obsess with so many cards and stuff. If you really know how to explain the way complex additions are done, why do you need to do ten different calculations? It makes no sense. (Interview with the Head of State School number 3, l. 356-360).

This reflects both a loss of autonomy and a shift in the focus of teaching work (from holistic, process-based learning to fragmented, task-driven

routines guided by technical goals). This perspective, again, meets some resistance from families who do not fully accept new ways of working using technology and governance, as evidenced in the following statement:

They do not assimilate information the same way. Because before you searched the dictionary for the meaning of a word, created a sentence—in this case, for example, in English—you acquired more knowledge than you do now. Now you use the translator... and it gives you everything.... Sometimes they translate nonsensical things with the translator and they're not able to see it. Yes, it is true that it generates a lot of information, many benefits, but there are also many drawbacks. (Interview with the Head of the private school, l. 364-376).

This perceived resistance has made it possible to detect that, in the centers studied, families question the legitimacy of the strategies and resources used in the classroom. This is especially true in relation to the use of technological devices and digital teaching materials. This is reflected in the following excerpt from a discussion group:

I have to print everything for my son. Why? Because he can't study with a computer in front of him. He can't go and make a summary on a document on the computer. They don't know how to summarize or study it. So I print everything, and then he gets the grades he gets, because since he came in, in my opinion, and when he started with the computer, the fall has been tremendous, and it's a matter of maturity. I mean, 100%. Because he can't tell what is work and what is fun. And sometimes for him the computer is all just fun, and that, for me, is a problem, honestly. (Group discussion with families of the private school, l. 108-115).

As a result, families express fears and insecurities that result in them intensifying their control over their children's activity, as some of the mothers interviewed explained:

What we do is try, above all, to control computer play time, because it is true that it can be used as a work tool and it should be a work tool, not to play, which is what children often do. So I'm against all this. (Group discussion with families of the private school, l. 87-90).

I come and sit down, and check the browser history, and I can find anything. I see the number of pages they've visited and they don't have much to do with what they're studying. (Group discussion with families of the state school number 2, l. 95-96).

This intensification of control over the classroom activity, which transcends traditional instances and spaces, emphasizes the logic of productivity and accountability, which are mainstays of governance, which comes to show, despite appearances, that we are not facing a break with classic work organization, but a new and more subtle form of Taylorism, as Noll (2019) shows in his work.

The “new” professional role: Productivity and achievement of goals

In the centers studied, the research team observed that the incorporation of digital platforms is causing substantial changes both in the way production is organized and in task establishment and distribution. There is a progressive transition from the Fordist to the Post-Fordist system, characterized by the flexibilization of work based on the ubiquity of technologies and the progressive replacement of state intervention with the principles that govern corporations. This category clearly emphasizes the focus on product rather than process, aligning with governance logics that prioritize measurable outcomes over educational depth.

One of the most relevant features of the new management models is the emphasis on results and productivity, on achieving the strategic objectives assigned to the organization. In addition, results and objectives are rationalized in tables and hierarchies because, as Ball & Youdell (2007) point out, that is the way to make educational processes “transparent”. The school community assumes this narrative, expressed in different ways by school officials, as reflected in the following statement made by a student's mother: “The drop in academic level has been incredible since he started using the computer” (Group discussion with families of the private school, l.179-185).

The families' results-focused vision is recognized by teachers, as the following contribution shows: “It really is more difficult to keep families happy. Because they think children come to play, they think they don't learn here” (Group discussion with families of the state school number 2, l. 379-381).

Despite this, teachers do not divert attention from grades and productivity in the observed centers. This situation also generates criticism from the faculty, as reported by one of the directors interviewed when referring to individualism: "I think this greatly leads to individual work. I close myself in my little section, I work in this little section that sort of education would be missing... I don't think this way of working teaches them more" (Interview with the Head of State School number 2, l. 457-459).

The same director denounced complained in informal conversations with the head of studies (collected in the research diary) that the excessive emphasis on certain digital modalities causes a technical shift in education that undermines both values (the primacy of individualism versus inclusion) and skills (fine motor skills).

These findings support theoretical discussions by Ball (2015) on performative logic and managerialism in education, and Pérez Gómez (2019) on changing teaching roles in the digital age. The study shows that teachers are now adaptive agents in a digital governance-shaped ecosystem, not just content transmitters. It also provides empirical evidence of "uberisation" in schools (Pardo Baldoví & San Martín Alonso, 2020), showing how platforms reshape classroom practices and the management of authority, autonomy, and responsibility. This research deepens understanding of how digital governance transforms educational subjectivities and pedagogical cultures.

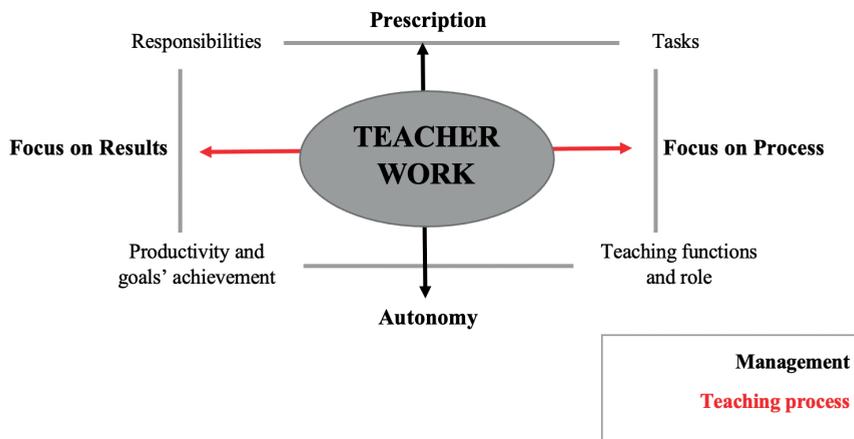
Conclusions

As social constructions, schools do not remain impervious to the influence of hegemonic social tendencies. New public management models, legitimized by the use of digital platforms, are progressively permeating different institutional aspects and involving the school agents, even influencing teachers and the conditions in which they develop their daily work in the school's organizational framework, as has been proven in the field study of the current research project.

Returning to the conceptual map, synthesized in Figure 1, one can see that these transformations have a holistic impact on pedagogical work. The changes establish synergies and relationships between them, reinforcing each other in a significant way and promoting a profound reconceptualization of teaching work, as can be seen in Figure 2.

Figure 2

Diagram on dimensions and phenomena affected by the impact of new public management in the classroom



Based on the changes in their daily actions, teachers start considering other values and narratives in which traces of the principles of governance can be perceived and which are causing a digital transformation of teaching practice and of the ways in which pedagogical work is developed in schools, progressively moving towards “uberised” approaches (Collins et al., 2022; Pardo Baldoví et al., 2018; Pardo Baldoví & San Martín Alonso, 2020). Teachers and students develop their tasks in a digital ecosystem that makes their work invisible (Lara, 2018), and also generates multiple interdependencies in the execution of the tasks (Mountford & Geiger, 2020).

In conclusion, the results of the study point to the fact that the role of the teacher is reconceptualized through the use of technologies and digital platforms in the classroom, moving along the axes and categories listed in the Figure 2. The transformations are reflected in tasks, roles, responsibilities and the focus of teachers' work, now linked to productivity.

This has a powerful impact on the organizational life of the center and classroom. Moreover, it forces a transformation of the traditional curriculum, which is now interpreted and even filtered in different ways and by multiple agents, sometimes with no direct responsibilities in the school system. So while in previous stages the curriculum was considered a spiral and the development of the curriculum was recognized in its own practice, now subject to governance logics and competency indicators (Chiappe et al., 2020).

In addition, this logic of digital governance provokes the emergence of new identities and subjectivities for teachers. In a school context determined by governance, teachers assume the new model of self-governing, that influences not only their practices, but also the intensification of their tasks and the precariousness of their working conditions (Fávero & Bechi, 2020).

In summary, these findings show how digital governance reshapes teaching roles through prescription, autonomy control, and productivity focus, revealing their hybrid and sometimes conflicting nature. Teachers face a framework valuing autonomy yet imposing subtle data-driven controls. The fragmentation of tasks challenges traditional professional identity, suggesting teaching is now distributed and platform-mediated. This study advances understanding by showing governance reshapes the meanings of teaching, learning, and responsibility in digital schools. Future research should explore increasing corporate influence in education.

Acknowledgments

This paper is based on the third phase of research project Análisis de las estrategias docentes del profesorado ante la digitalización de los contenidos del curriculum de educación infantil y primaria (GV/2018/074), funded by the Conselleria d'Educació of the Valencian Community, and is part of the PhD dissertation FPU16/04009, funded by the Spanish Ministry of Science, Innovation, and Universities.

References

- Antunes, F. & Viseu, S. (2019). Education Governance and Privatization in Portugal: Media Coverage on Public and Private Education. *Education Policy Analysis Archives/Archivos Analíticos de Políticas Educativas*, 27(125). <https://doi.org/10.14507/epaa.27.4293>
- Awidi, I.T. & Paynter, M. (2024). An Evaluation of the Impact of Digital Technology Innovations on Students' Learning: Participatory Research Using a Student-Centred Approach. *Technology, Knowledge and Learning*, 29, 65–89. <https://doi.org/10.1007/s10758-022-09619-5>
- Ball, S. J. (2015). Education, governance and the tyranny of numbers. *Journal of Education Policy*, 30(3), 299-301. <https://doi.org/10.1080/02680939.2015.1013271>

Pardo Baldoví, M. I., San Martín Alonso, A. y Valle Aparicio, J.E. (2025). Teachers' work in the era of digital governance: a qualitative study. *Educatio Siglo XXI*, 43(3), 197-218.

- Ball, S. J. & Youdell, D. (2007). *Hidden Privatisation in Public Education*. Education International.
- Blikstein, P. (2018). Maker movement in education: History and prospects. En M. J. de Vries (Ed.), *Handbook of technology education* (pp. 419–437). Sense Publishers. https://doi.org/10.1007/978-3-319-44687-5_33
- Cappello, G. (2022). The Platformization and Commodification of Italian Schools during the Covid-19 Crisis. In M. Colombo, M. Romito, M. Vaira y M. Visentin (Eds.), *Education and Emergency in Italy. How the Education System Reacted to the First Wave of Covid-19* (pp. 219-237). Brill. https://doi.org/10.1163/9789004523234_010
- Chalkiadakis, L. & Noguera, I. (2024). K-12 Teacher's Appropriation of Digital Technologies and Innovative Instruction Across EU: A Scoping Review. *International Journal of Instruction*, 17(1), 415–436.
- Chiappe, A., Ternent, A., Wills, A. y Restrepo, I. (2020). La educación del siglo XXI y el despertar de las bellas durmientes: una revisión sistemática de la literatura. *Education in the Knowledge Society*, 21(15). <https://doi.org/10.14201/eks.22483>
- Collins, H. J., Glover, H. & Myers, F. (2022). Behind the digital curtain: a study of academic identities, liminalities and labour market adaptations for the 'Uberisation' of HE. *Teaching in Higher Education*, 27(2), 201-216. <https://doi.org/10.1080/13562517.2019.1706163>
- Erkut, B. (2020). From Digital Government to Digital Governance: Are We There Yet? *Sustainability*, 12(3), 860. <https://doi.org/10.3390/su12030860>
- Fávero, A. A. & Bechi, D. (2020). A subjetivação capitalista enquanto mecanismo de precarização do trabalho docente na educação superior. *Arquivos Analíticos de Políticas Educativas*, 28(13). <https://doi.org/10.14507/epaa.28.4891>
- Fontana, A. & Prokos, A. H. (2016). *The Interview: from Formal to Postmodern*. Routledge.
- Franco-Santos, M., Nalick, M., Rivera-Torres, P., & Gomez-Mejia, L. (2017). Governance and Well-being in academia: Negative consequences of applying an agency theory logic in higher education. *British Journal of Management*, 28(4), 711–730. <https://doi.org/10.1111/1467-8551.12249>
- Gallardo Fernández, I. M., De Castro Calvo, A. & Saiz Fernández, H. (2020). Interacción y uso de tecnologías en los procesos de enseñanza y aprendizaje. *Educatio Siglo XXI*, 38(1), 119–138. <https://doi.org/10.6018/educatio.413441>
- Gibbs, G. (2012). *El análisis de los datos cualitativos en Investigación Cualitativa*. Morata.
- Gunter, H. & Fitzgerald, T. (2013). New Public Management and the modernisation of education systems. *Journal of Educational Administration and History*, 45(3), 213–219. <https://doi.org/10.1080/00220620.2013.796914>
- Hase, A. & Kuhl, P. (2024). Teachers' use of data from digital learning platforms for instructional design: a systematic review. *Educational technology research and development*. <https://doi.org/10.1007/s11423-024-10356-y>
- Lara, A. L. (2018). Facework: trabajo digital, redes sociales y nueva servidumbre. *Sociología del trabajo*, 93, 159–180. <https://doi.org/10.5209/STRA.61795>
- López Rupérez, F., García García, I. & Expósito Casas, E. (2017). *La calidad de la gober-*

Pardo Baldoví, M. I., San Martín Alonso, A. y Valle Aparicio, J.E. (2025). Teachers' work in the era of digital governance: a qualitative study. *Educatio Siglo XXI*, 43(3), 197-218.

nanza del sistema educativo español. Un estudio empírico. Universidad Camilo José Cela.

Luengo Navas, J. y Molina-Pérez, J. (2019). Construyendo la resistencia profesional en un espacio educativo neoliberalizado. *Educatio Siglo XXI*, 37(1), 91–112. <https://doi.org/10.6018/educatio.363401>

Manoharan, A.P., Melitski, J. & Holzer, M. (2023). Digital Governance: An Assessment of Performance and Best Practices. *Public Organization Review*, 23, 265–283. <https://doi.org/10.1007/s11115-021-00584-8>

Mountford, N. & Geiger, S. (2020). Duos and duels in field evolution: How governments and interorganizational networks relate. *Organization Studies*, 41(4), 499–522. <https://doi.org/10.1177/0170840618789210>

Noll, H. (2019). ¡Es taylorismo, estúpido! Sobre la nueva organización científica de la investigación y la docencia en la Universidad Española. *Sociología del trabajo*, 95, 1-18. <https://doi.org/10.5209/stra.66436>

OECD/CERI, (2015). *Governing Complex Education Systems* (GCES). <http://www.oecd.org/education/ceri/gces.htm>

Ortega, A. (2019). Gobernanza digital: ¿Hacia una nueva utopía? *Telos*, 110, 1–10. <https://telos.fundaciontelefonica.com/telos-110-autor-invitado-gobernanza-digital-hacia-una-nueva-utopia/>

Parcerisa, L. y Verger, A. (2016). Rendición de cuentas y política educativa: Una revisión de la evidencia internacional y futuros retos para la investigación. *Profesorado. Revista de Currículum y Formación del Profesorado*, 20(3), 15-51.

Pardo Baldoví, M. I. y San Martín Alonso, Á. (2020). Tecnologías y cultura organizativa en los centros escolares. ¿La uberización de las relaciones laborales? Technologies and organizational culture in schools. The labor relations' uberization?. *Píxel-Bit. Revista De Medios Y Educación*, 58, 161-179. <https://doi.org/10.12795/pixelbit.72767>

Pardo Baldoví, M. I., Marín Suelves, D. y Vidal Esteve, M. I. (2022). Prácticas docentes en la escuela digital: la inclusión como reto. *Revista Latinoamericana De Tecnología Educativa – RELATEC*, 21(1), 43-55. <https://doi.org/10.17398/1695-288X.21.1.43>

Pardo Baldoví, M. I., Waliño-Guerrero, M. J. y San Martín Alonso, Á. (2018). La “uberización” de los centros escolares: reorganización del trabajo pedagógico mediante las plataformas digitales de contenidos. *Educatio Siglo XXI*, 36(2), 187-208. <https://doi.org/10.6018/j/333031>

Pardo Pérez, J. C. y García Tobío, A. (2003). Los estragos del neoliberalismo y la Educación Pública. *Educatio Siglo XXI*, 20, 39-85.

Pérez Gómez, Á. I. (2019). Ser docente en tiempos de incertidumbre y perplejidad. *Márgenes. Revista de educación de la Universidad de Málaga*. 0(0), 3–17. <https://doi.org/10.24310/mgnmar.v0i0.6497>

Pink, S., Horst, H., Postill, J., Hjorth, L., Lewis, T. y Tacchi, J. (2019). *Etnografía digital. Principios y práctica.* Morata.

Roberts-Holmes, G. (2015). The ‘datafication’ of early years pedagogy: ‘if the teaching is good, the data should be good and if there’s bad teaching, there is bad data’. *Journal of Education Policy*, 30(3), 302–315. <https://doi.org/10.1080/02680939.2014.924561>

Ruiz Domínguez, M. Á. y Area Moreira, M. (2021). La transferencia del conocimiento en

- Pardo Baldoví, M. I., San Martín Alonso, A. y Valle Aparicio, J.E. (2025). Teachers' work in the era of digital governance: a qualitative study. *Educatio Siglo XXI*, 43(3), 197-218.
- la red. Análisis del portal educativo Yo Soy Tu Profe. EDUTEC. *Revista Electrónica De Tecnología Educativa*, 76, 159-180. <https://doi.org/10.21556/edutec.2021.76.1917>
- Santori, D. (2016). Public narratives under intensified market conditions: Chile as a critical case. *Discourse Studies in the Cultural Politics of Education*, 39(2), 1–16. <https://doi.org/10.1080/01596306.2016.1229267>
- Saura, G. (2020). Filantropocapitalismo digital en educación: Covid-19, UNESCO, Google, Facebook y Microsoft. *Teknokultura. Revista de Cultura Digital y Movimientos Sociales*, 17, 159-168. <https://doi.org/10.5209/tekn.69547>
- Stake, R. E. (1995). *The Art of Case Study Research*. SAGE.
- Touraine, A. (1993). *Crítica de la modernidad*. Temas de hoy.
- Vuopala, E., Guzmán Medrano, D., Aljabaly, M., Hietavirta, D., Malacara, L. & Pan, C. (2020). Implementing a maker culture in elementary school – students' perspectives. *Technology, Pedagogy and Education*, 29(5), 649-664. <https://doi.org/10.1080/1475939X.2020.1796776>
- Williamson, B. (2019). *El futuro del currículum. La educación y el conocimiento en la era digital*. Morata.
- Yelicich, C. (2019). La dirección escolar colonizada: el mundo empresarial en la escuela. In A. de Melo, I. J. Espinosa, L. Pons y J. I. Rivas (Eds.), *Perspectivas decoloniales sobre la educación* (pp. 213-244). UMA Editorial.

