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THE ACCOUNTING JOB – END OR A NEW BEGINNING?

DRAGOȘ-OVIDIU TOFAN
Alexandru Ioan Cuza University of Iași
Iași, Romania
dragos.tofan.2014@gmail.com

Abstract
The World Economic Forum launched on May 3, 2023, the "Future of Jobs Report" which, based on a study applied to 803 representative companies from 45 economies, brings to analysis some shocking data regarding the evolution of the job market at global level. Thus, a simple arithmetic shows that the volume of 69 million new jobs predicted to be created in the next five years is dwarfed by the loss of 83 million positions, thus resulting in a disappearance of 14 million jobs. Motivated by the fact that Accounting, bookkeeping, and payroll clerks are among the most affected fields, the article analyzes the current position of this field of activity in relation to the new digital transformations and seeks to identify survival niches. In this sense, the needs of professional training are identified as well as how the process automations generated by digitization and AI can lead to the total or partial reinvention of the accounting profession.
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JEL Classification: M1, M2, M4, O3.

1. INTRODUCTION

The economic and social impact as well as the development prospects of the technologies involved make "digitalization" a ubiquitous term, with impact in vast geographical areas and having complex applicability. The concept is often perceived and used as a synonym for "digitization", but the two notions require a clear dissociation: "digitization" is a technical process of converting data from analog to digital bits, while "digitalization" refers to a increased use of digital and IT technologies at work (Dabic *et al.,* 2023). Simple "computerization" at the level of company, institution, region, etc. it is replaced by a complex of technologies and work procedures that lead to transformations and reconfigurations of the economy and work, at the macro level.

Defining “digitalization” is not exactly an easy task, this fact being due to the multiple implications of the notion and the increasingly varied fields of application. Academia defines digitization through digital communication and the impact that digital media has on contemporary social life (Brennen and Kriess, 2016). Thus, the notion is synonymous with a strategy or process that goes beyond the implementation of technology to generate profound and fundamental

transformations of business models and the evolution of professions. The Gartner Group sees digitalization as “the use of digital technologies to change a business model and provide new opportunities for revenue and value creation; it is the process of moving to a digital business". Digital transformation is more about people and less about technology, as it is management-driven organizational change due to radical challenges to corporate culture and the leverage of technologies that empower and assist employees. In the broad and complex context of digitalization, the automation of office work derives from the need for cost reduction, operational efficiency, relinquishment of stacks of papers and, finally, superior utilization of available human resource skills.

Although digitalization facilitates access to innovation, technologies and knowledge, the potential risks and threats to human resources are becoming more apparent. The emergence of the computer and the Internet caused new dilemmas in the world economic landscape, which led, in 1983, the Nobel Prize laureate, Wassily Leontief, to bet on the gradual diminishing of the role of the most important factor of production, namely, the human resource in as happened with the disappearance of horses in agriculture, being replaced by tractors (Leontief, 1983). The theory that technology is a major cause of job loss has been challenged, however, by a broad spectrum of economists who believe that automation and other forms of technological progress create more jobs than they eliminate. Apparently, the reasoning is simple: reducing production costs leads to lower prices and, implicitly, to increased demand; in a competitive market, technological changes have the effect of increasing production which requires more labor, thus compensating for the reduction of human resource expenditure per unit of product (Brynjolfsson and McAfee, 2014).

The accelerated pace of digitalization in recent years, the regional specificity in the broad spectrum of globalization, the complexity of automation implications in different fields or branches of economic activity, however, call for a more careful analysis of the perspectives of work as a factor of production, work through the lens of particular aspects, beyond the aforementioned general self-regulation mechanisms. In recent years, consistent signals have been sent to analysts and policy makers regarding the adverse effects of intelligent information technologies, especially on the risk of unemployment. Such a warning comes from Frey and Osborne (2013) who, based on a machine-learning algorithm developed at Oxford University, conclude that 47% of jobs in the USA are at risk of being automated in the next 20 years (Nedelkoska and Quintini, 2018). Elon Musk warned in 2017, at a World Government Summit in Dubai, about mass unemployment that will be a real social challenge due to the sharp reduction in the number of jobs that will not be affected by robotization, and Bill Gates even proposes the taxation of automated work (Larson, 2017). The reports of the World Economic Forum, respectively The Future of Jobs Report, indicate, in recent years, the fact that activities based on routine, which require average training,

accountants, payroll clerks and auditors will be less sought after in the future. The ACCA (Association of Chartered Certified Accountants) study, carried out in 2020 on the future configuration of the labor market, shows a trend of reinventing jobs in which the human factor combines traditional methods with new technologies that will have a significant impact in the next three years, giving a pronounced digital and multi-disciplinary character to positions in the field of financial-accounting processing (ACCA, 2020).

The changes brought about by digitalization lead to resizing of the contribution of the human factor, by relieving repetitive and time-consuming operations, leaving room for creativity, professional reasoning or even the involvement of a specific sensitive or emotional side. However, the foreshadowed changes can negatively influence the perception of new work tools for several reasons: fear of unemployment, insufficient professional training, incomplete information on smart technologies, etc.

2. RESEARCH JUSTIFICATION

The latest report issued by the World Economic Forum predicts for the next 5 years (2023 – 2027) the evolution of jobs from which the article notes two antagonistic trends:

- The category of jobs with *upward evolution*, of which agricultural equipment operators, heavy truck and bus drivers, vocational education teachers are on the first places.
- The category of jobs with *downward evolution*, of which on the first three places we find data entry operators clerks, executive and administrative secretaries, accounting, bookkeeping, and payroll clerks.

As for the last three categories of jobs, they total half of the total number of jobs threatened with extinction, according to the study. The table below (Table 1) presents a preliminary analysis of the candidate profile for these jobs, with the aim of identifying several common elements that have turned these jobs into prime targets of global digitalization:

Table 1. Particularities of the jobs that will be affected by digitalization in the period 2023 – 2027

Responsabilities	Skills and qualifications required	Common elements
Data entry clerks		
Completing and updating databases. Data review, detection of redundancies and errors, making corrections.	High school diploma or equivalent. Data entry experience. Excellent written and verbal communication skills.	Significant volume of routine, repetitive and generally rule-based operations.

Responsabilities	Skills and qualifications required	Common elements
Generating specific reports, storing results in the database, and performing backups. Scan and print files on demand.	Ability to type quickly and accurately. Knowledge of operating spreadsheets and online forms. Ability to keep company information confidential.	Emphasis on preserving informational confidentiality. Generating and disseminating reports to the organizational levels concerned. The need for fast and error-free dissemination of information.
Executive and administrative secretaries		
Answering and directing calls. Carrying out reception formalities. Managing calendars. Making travel arrangements. Participation in meetings, preparation of minutes. Maintaining office inventory. Dissemination of memos, reports, etc. to relevant colleagues.	Time management and organizing skills. Communication skills, including with all levels of employees, vendors and customers or guests. Professional writing skills, including emails, memos, letters, etc. Good computer skills, familiarity with word processors, spreadsheets, document sharing and presentation skills.	
Accounting, bookkeeping and payroll clerks		
Transactions bookkeeping. Monthly closing of registers. Completing tax forms. Management of receivables and payables accounts, payrolls. Processing purchases and refunds for customers. Preparation of financial statements and records in accordance with regulations. Supporting quarterly tax estimates and annual returns. Supporting the establishment of the company's best practices related to accounting.	Attention to detail and record keeping skills. A good understanding of accounting and financial operations. Knowledge of accounting, invoicing software. Honesty and discretion in working with sensitive information. Ability to quickly perform calculations. Comfortable working with word processors and spreadsheets. Knowledge of standard accounting principles and best practices. Excellent written and verbal communication skills. Ability to maintain strict confidentiality of company financial information.	

Source: own projection based on data available in the Future of Jobs Report issued by the World Economic Forum (2023), and on www.linkedn.com, www.indeed.com

Having the defining elements that determined these jobs to be affected by the new conditions of current excessive technologization, the present study motivates its research starting from three pillars or working hypotheses:

H1. Personnel involved in accounting and payroll operations are directly affected by the trend of job reductions (this professional category appears on the 3rd place in the World Economic Forum analysis, but it is also noted that data-entry operators can have similar roles).

H2. Digitalization, especially process automation, has already changed the tools and work procedures of accounting professionals at different levels of expertise in terms of collecting, processing data, recording transactions, or generating reports.

H3. Disruptive technologies have caused displacement of human resources (especially medium-skilled) by saving a considerable number of working hours at the level of organizations.

3. METHODOLOGY

The study used, as the main working tool, beyond the exhaustive treatment of the specialized literature, the analysis of the effects of digitalization on the future of financial-accounting practice from several points of view:

- Dedicated digital technologies – offers, news, developments, market volatility of suppliers of such products.
- Case studies, practical examples – automation solutions successfully applied in the field of financial reporting, simultaneously with the highlighting of shortcomings and risks in the automation of financial-accounting data management processes.
- The current social and economic context – organizational culture, the need for professional retraining of human resources, constraints, and legislative changes.

The fact that digital technologies come with a particular dynamic and with a rather alert extension of applicability, the present analysis forces a certain rigor in the way of selecting the materials through the prism of the sources (they must be recognized and verifiable), the year of appearance (it emphasizes novelty), of content relevance (extraction of innovative ideas). Thus, the identification of data sources containing publications relevant to the topic resulted in electronic libraries such as IEEE, Science Direct – Elsevier, SpringerLink and Google Scholar. In addition, the bibliographic resources cited in the content of the articles thus identified were also taken into consideration and Google Scholar alerts were necessary to identify, during the writing of the present work, the news published about digitalization in accounting. The publications in English were studied, as a priority, by introducing in the search process expressions such as: "digitalization in accounting", "digitization in accounting", "cognitive process automation", "intelligent process automation", "digital technologies for financial reports".

The main objective of the research is to identify the prospects as well as the chances of survival of the accounting profession in the current context generated by the accelerated digitalization of specific processes. This approach is carried out by finding answers to the following questions:

Q1: What is the current state of engagement of digital technologies in accounting?

Q2: What challenges/problems have been solved by digitalization and the extent to which they have been met?

Q3: What are the main risks caused by digitalization for the accounting profession?

Q4: How can the risks identified in question number 3 be managed so that the profession of accountant has a future in terms of digitalization?

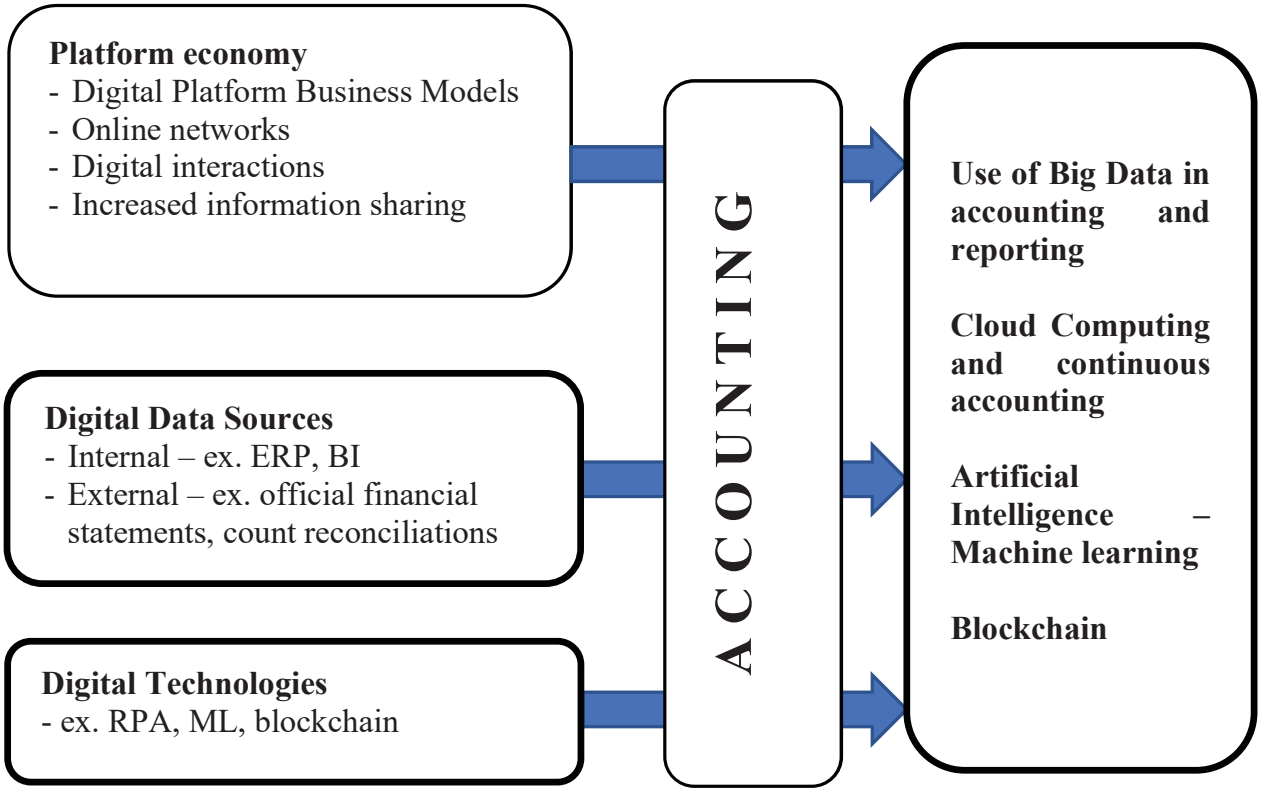
The answers obtained were treated with the aim of providing a complete picture of the contextual situation, to identify opportunities or realistic perspectives for the accounting profession and to suggest future research directions in the field of automation in the collection and processing of financial-accounting data.

4. DISCUSSIONS

4.1. The current state of digitalization involvement in accounting

In the last specific evolutionary stages, the accounting profession was organically linked to the advances made in the IT field, the literature speaking of two technological phases with an impact on organizations (Granlund and Mouritsen, 2003). The first phase was driven by computerized information systems specific to the 1960s and 1970s and allowed accountants to accurately record data as well as perform analyzes at a higher level of detail. The second phase was facilitated by the emergence and expansion of the World Wide Web and integrated information systems in the late 1990s and early 2000s. Enterprise Resource Planning (ERP) systems have been emblematic of transaction-oriented information systems that have allowed accountants to process information in a different and much more efficient manner (Knudsen, 2020). The third phase is well underway and is known collectively as "digitalization" and in which technologies are transforming and expanding the sources and types of data processed by accountants. Digitalization plays a double role: on the one hand, it creates new platforms for conducting business (e.g. e-commerce), radically transforms the availability of data (intangible format, available online and in real time), creates security risks (the multitude of data and information requires filtering and access monitoring) or determines new regulations from authorized bodies (new financial reporting format, e.g. Electronic Single European Format – ESEF, starting in 2020); on the other hand, the same technologies provide the solutions for the accounting activity to perform in the new conditions.

Technological innovations and online connectivity have created the premises of the so-called "platform economy", according to a 2019 Deloitte report that draws attention to the double impact of excessive digitization, namely, facilitating economic relations but also profoundly modifying processes and mechanisms within organizations (Chan *et al.,* 2019).



Source: own projection

Figure 1. Instruments generated by digitalization in accounting

Thus, the applicability of digital technologies in financial-accounting data processing works based on the new principles of openness and information sharing and has a strong impact on how companies consolidate their strategic plans (Gulin *et al.,* 2019). The role of the accounting professional is moving from simple data entry, transaction recording or simple analysis to strategic business consulting. The reason? Simple, routine, repetitive operations or operations that do not require additional human expertise are already successfully solved by automation (e.g., Robotic Process Automation - RPA), management requesting predictive analytics, consulting, strategic information in real time.

4.2. Problem solving through digitalization

Therefore, the technologies that have found application in the financial-accounting field have responded to some desires regarding how organizations

understand to respond to current challenges. Analysis of the offers of the most well-known software solution providers in the field, the motivations underlying the digitalization of financial-accounting processes, starting from the need to increase work speed, removing paper support, and going up to complex, error-free and high-quality analyzes high addressability (Gulin *et al.,* 2019).

Table 2. Digital solutions for accounting challenges

Adresability	Digital solution	Provider	Documentation source
Monitoring and payments	Cloud-based software applications with the ability to eliminate manual data entry	Xero	www.xero.com
Financial reporting	Data collection, automatic generation of Trial Balance, Profit and Loss Account, Cash Flow Report	Oracle NetSuite FreshBooks Quickbooks Online	www.oracle.com/erp/ www.freshbooks.com www.quickbooks.intuit.com
Bank feed	Automatically download incoming and outgoing transactions from bank account to accounting software	Oracle NetSuite FreshBooks	www.oracle.com/erp/ www.freshbooks.com
Data visualisation, internal reporting	Dynamic and customizable dashboards, with real-time visualization of key values: cash flow, profit and loss, account balances, expenses, accounts payable and receivable, and sales.	Oracle NetSuite FreshBooks Zoho Books	www.oracle.com/erp/ www.freshbooks.com www.zoho.com
Data-entry, transaction registration, data collection, form filling	Automate repetitive, routine, and high-volume tasks.	Robotic Process Automation (RPA)	www.uipath.com www.blueprism.com
Accounts payable, accounts receivable	Software for automating accounts payable that can manage all payments in one central location, providing a clear picture of finances. Payments, approvals	Plooto	www.plooto.com

Adresability	Digital solution	Provider	Documentation source
	and reconciliation are unified under one dashboard		
Inventory Management	Digital tools to manage inventory at multiple locations, transfer inventory between locations in one click and manage barcodes	ZarMoney	www.zarmoney.com

Source: own projection based on offers from software solution providers dedicated to the financial-accounting field

4.3. Risks generated by the digitization of financial-accounting processes

Digitization frees accountants from a significant amount of redundant, routine tasks, allowing them to engage in more creative activities, e.g., consulting, or financial analysis (Herbert *et al.,* 2016). Strictly from the point of view of human resources, this transformation of work tools is perceived differently and provokes reactions depending on the position or role held within an organization:

- ✓ human operators replaced in the performance of routine and repetitive processes that require average training - they may show an attitude of resistance, skepticism, fears related to the prospect of unemployment or the need for professional retraining.
- ✓ management/shareholders – concerned with the return on investment in digital technologies, can allocate budget for expanding digitization to other sectors as well.
- ✓ Financial controllers and CFOs - start using structured data, unstructured data, and predictive analytics to access large base of customer information, financial trends, and industry information to make insightful forecasts.
- ✓ highly qualified staff – they are relieved of redundant, time-consuming tasks and are more involved in professional reasoning, consulting, etc., but need new skills in data analysis or the use of new IT tools.

The risks of digitization can be categorized, therefore, from the point of view of the level of impact, as follows: *risks perceived at a personal level* - by everyone, directly affected by the introduction of new technologies, and *risks perceived at an organizational level* - by management levels, departments involved, shareholding, etc.

The *risks perceived at the personal level* are determined by the training level of the human resource. Thus, for accountants with an average qualification and who carry out activities that do not involve a high level of expertise or analytical thinking skills, they may face the *risk of job loss* or *professional non-compliance*

determined by a substantial change in the required duties and skills through the job description. This is the category of "white-collar" workers in the third position in the ranking of jobs predicted to be in decline between 2023 and 2027, according to the Future of Jobs Report issued by the World Economic Forum in 2023. Routine, rule-based and repetitive tasks are perfect for an automation process (e.g., RPA) that has the role of saving a significant number of FTEs (Full Time Equivalent) at the company level. The staff displaced in this way needs professional reorientation, reintegration into the organizational chart of the organization having it maintained in the payroll.

Personnel with a higher qualification may face the *risk of deprofessionalization*; according to Al-Htaybat and von Alberti-Alhtaybat (2017), the predictive possibilities of data analytics are useful for internal decision making, but the accountants need additional skills to use data analytics, to analyze and interpret newfangled types of information. All the requalification has the gift of familiarizing the accounting professional with the new tools of digitalization, but they also have the potential to divert the focus of the human factor on some key aspects such as, for example, professional reasoning regarding situations/exceptions, or the application of regulations legislative or procedural.

The transformation of accountants into data analysts in the context of excessive technology can generate an accumulation of financial reports obtained automatically, but with the *risk of distortion of reality or error*. Thus, there is a transition to a new category of risks, namely, those *perceived at the level of the organization*, of which the first mentioned, of obtaining an information system in which the lack of involvement of specifically human critical thinking can generate errors in data analysis or incomplete reports. Scanning data from paper format can prove to be of low efficiency (for example, reading materials from matrix printers) and the information thus taken into the system is incomplete (Januszeski *et al.,* 2021).

At organization level, *cybersecurity risks and privacy issues* are expected to become increasingly important, as information spreads faster and broader thanks to new digital technologies. It is about awareness of aspects related to intellectual property rights, the risk of theft or loss of financial information, sabotage, or disclosure of confidential and sensitive data at the company level (Timea Fulop *et al.,* 2022). Decision makers should be familiar with the potential risks of becoming overly reliant on data-driven numbers and visual representations.

The *risks of underestimating the costs of digitalization* are often neglected, especially when discussing the benefits of digitization in terms of budget savings (e.g., savings in manual labor hours) or increased productivity and operational efficiency. There is little or no discussion of the less visible or hidden costs of monitoring, professional retraining, information security, etc. specific to the post-implementation period of digitization solutions. At the same time, finding new assignments for the human resource displaced by digitization can become a real

challenge that, if not managed correctly, can become a cost. Basically, the economy of labor hours is only a gain on paper in the conditions that the company has the same number of employees who are not capitalized by other tasks or attributions (Eulerich *et al.,* 2022).

In a different approach, Deloitte's report on the impact of automation through RPA (Robotic Process Automation) on organizations draws attention to the inherent risks which it classifies as follows (Szalony *et al.,* 2018):

- ✓ *operational* – replacement of several operators by a single software robot, lack of control mechanisms in case of changes.
- ✓ *financial* – non-compliant implementation of technologies, incorrectly or incompletely designed algorithms.
- ✓ *regulatory* – implementation of solutions that do not comply with legislation or internal rules, lack of clear regulations regarding automation.
- ✓ *organizational risks* – producing a negative impact on the human resource displaced from specific tasks, incorrect or incomplete presentation of digitalization solutions.
- ✓ *technological risks* – affecting current IT platforms, introducing powerful algorithms with a negative impact on critical IT infrastructure.

The report states that these risks ultimately lead to financial losses and suggests control procedures at different organizational levels in all phases of the implementation of automation solutions. The solutions thus suggested are intended for organizational policies regarding accounting processes and contain a series of tools and measures depending on the degree of maturity and involvement of automation.

4.4. Digitalization risks management

The identified risks have the potential to transform a digitalization process into a direct threat not only to the accounting profession itself but also to the overall operational functionality of an organization. Awareness of these risks is an important step towards finding and applying the most suitable approaches both from the individual directly affected by digitalization and from the company that must keep up with the current technological momentum. The literature as well as specialized practice identify a series of solutions of a technical or procedural nature, according to Table 3.

Table 3. Risk management in accounting digitalization

Risks	Solutions	Documentaion source
Job loss Lack of skills	Development of a new set of technical skills (user of digital tools, developer, programmer, etc.) Development of analytical, creative thinking skills, etc.	World Economic Forum Report (2023)

Risks	Solutions	Documentaion source
Employees deprofessionalization	Implementation of introductory programs/courses in digital technologies Organizational culture policies aimed at inducing the idea of complementary working tools regarding digital solutions, and encouraging creative thinking and professional reasoning regarding financial-accounting reports Involvement of all staff from the financial-accounting department in implementation, orientation towards motivating activities - monitoring, error intervention, supervision of the final form of financial report, etc.	Kokina and Blanchette (2019)
Errors in financial accounting processing and reporting	Correct identification of operational flows within the organization Establishing a central procedural framework across the organization with clear work procedures and rules for managing and monitoring RPA Use of appropriate technologies - e.g., the use of powerful scanners/reading programs - e.g., OCR (Optical Character Recognition) The use of standardized digital solutions in the issuance and exchange of documents between the organization and third parties	Moreira *et al.* (2023), Kokina and Blanchette (2019), Januszewski *et al.* (2021), Eulerich *et al.* (2022), Szalony *et al.* (2018)
Seurity risks	Strict inventory of implemented technologies, clear access procedures for employees of financial and accounting departments Periodic checks and controls, external auditing	Eulerich *et al.* (2022)
Underestimated digitalization costs	Identifying all accounting operational flows, maintaining a procedural stability that avoids further changes in the implemented systems. Use of proof of concept (POF) Involvement of accounting professionals from the design phase of digitalization solutions	UIPath (2023) - www.uipath.com

Source: own projection based on documentaion sources

5. CONCLUSIONS

The World Economic Forum report for the next 5 years (2023 – 2027) presents a dynamic on the jobs threatened by the digitization process and, more than that, brings to the fore a series of forecasts regarding the skills needed for current jobs to find a place in the near time horizon. The accounting profession finds itself in a position that is not comfortable, especially regarding activities like collecting data, recording transactions, issuing specific preliminary reports. Facing these findings to other studies regarding the trend of involving various

intelligent accounting processing or analysis tools shows that the financial-accounting field is an essential "target" of digitalization. In such a context, the article outlined a profile of the accounting employee who witnesses the insertion of new technologies in the work tools that is leading to a professional dilemma.

Computerization of accounting processes is not new, digitalization being an ongoing process; the current novelty comes from the automation capabilities that displace the human resource from the scope of routine tasks and that, if also supported by artificial intelligence, can generate complex and real-time financial accounting analyzes and reports. The present study, after a brief analysis of the stage of digital transformation in the field, shows that it comes as a response to the needs of efficiency in the sphere of information processing, acceleration of work speed, adaptation of accounting to contextual challenges. The manual preparation of the information desired by management is a long-term operation, exposed to errors and the need for subsequent rechecking, which determines the need for profitability, increased productivity of employees who are thus seen as norms or total working hours with a direct impact on the budget. Including the preparation of financial reports is a task that can be automated especially in the conditions where the retrieval of data from internal applications or other reports in digital format is carried out based on precise rules, from digitalized internal sources, in a structured way. Being a sector where the precision and speed of calculation are essential for the decision-making process, the tasks in the back-office area lend themselves to automation precisely because of the operational volume and the specific repetitive and routine character.

The answer to question Q3 is shaped, first, by the impact that digitalization has on the human resource in accounting departments, in particular, on employees with tasks that require medium training. It has been demonstrated that risks related to the need for professional reorientation or even deprofessionalization can have negative effects not only at the individual level but also at the organizational level. Excessive digitalization can shape an information system lacking typical human reasoning, thus generating errors in the recording of transactions, the generation of reports, the analysis and monitoring of operational flows. If data digitalization is apparently sufficient for their takeover in the automation process, the risks generated by the incomplete reading of some .pdfs or the intrinsic modification of the targeted processes can lead to the cancellation of the desired effects and, more than that, to the reintroduction of manual work (Kokina and Blanchette, 2019). The management of companies that have gone through the RPA experience recognize several difficulties in implementing such a project due to several considerations (Szalony, 2018):

- Insufficient preparation of the data involved.
- Incomplete knowledge of information flows.
- Failure to make necessary corrections in the standardization of the processes targeted by automation.

- Implementation of poorly designed algorithms, robots with errors.
- Failure to prepare or neglect the human factor displaced from specific tasks.
- Lack of clear rules or standards from regulatory bodies regarding automation.

In response to question Q4, proper risk management consists, first, in identifying and standardizing the processes targeted by digitalization along with subsequent monitoring of processes and how digital technologies work. These measures are intended to ensure the functionality of such an accounting information system, to bring added value in the effort to structure the financial reports necessary for decision-making within an organization. Implementing clear procedures and strict policies on how these virtual "workers" are managed in terms of access to data, algorithm updates, sensitive databases, contributes to the desired scalability of the project and a much-needed information security.

Given that the insertion of artificial intelligence components is already a reality in the sphere of financial-accounting information processing, the author believes that one more direction of research is needed to anticipate the impact of these tools on financial reports. The human factor still has the final say in the completion of periodic situations, but the outlook heralds an inevitable paradigm shift. As the World Economic Forum report reveals, the foreshadowed transformations are for a short time horizon, the accounting professional having to abandon traditional patterns, be self-taught, flexible and willing to change at an increasingly alert pace.

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