
Transformation from Traditional Management to Telematic Management in Non-Teaching Activities

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Abstract: A private university in Argentina aims to evaluate teleworking in non-teaching activities to improve the administrative and academic functioning of the Faculty of Engineering. Since the COVID-19 pandemic, the need to implement teleworking as an alternative solution to existing challenges has increased, and the institution is considering consolidating teleworking as a new valid method of work organization for non-teaching staff. A pilot experience of teleworking was carried out with the purpose of evaluating the current situation in terms of productivity and well-being of the personnel involved, as well as establishing the bases for a future implementation of telework as a stable work scheme. The study is based on qualitative research through the application of a diagnostic tool called "Telework Efficiency Index", previously used in various academic and business contexts. The results of the index amount to a score of 4.89046 on a scale of 0 to 10 points. Although the score obtained is somewhat below the average, there are solid indications to push the initiative towards a permanent work scheme. The main finding shows a clear need for change aimed at promoting people's well-being, although the results show a still incipient development of this modality. The study made it possible to design a permanent teleworking scheme for non-teaching staff, contributing an innovative initiative compared to the additional face-to-face model.

Keywords: Efficiency index, faculty of engineering, methodology, teleworking, university.

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INTRODUCTION

A well-known privately run university located in the Autonomous City of Buenos Aires in Argentina takes on the challenge of consolidating a permanent teleworking project for its Faculty of Engineering regarding the academic management activities carried out by non-teaching staff. The case has the particularity that it is one of the first universities in Latin America of guild origin to facilitate the access of Merchant Navy officers to undergraduate training. It currently has a total of 4 faculties, 28 undergraduate courses and 2 postgraduate courses. It is the first private Faculty of Engineering in Argentina with more than 80 years of experience. It is also the first Latin American University to have a Research Laboratory in Micro-Nanofluidics and Plasma, and to have the first Microfluidics Laboratory in Argentina. The Faculty of Engineering has 5 engineering careers: industrial engineering, mechanical engineering, electromechanical engineering, electronic engineering and systems engineering.

The areas of academic and administrative management are small with 12 functional people from the dean's office, the academic secretary, the direction of careers, and the administrative staff of the faculty. The



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faculty has a very small structure that facilitates articulating a good performance in the teleworking modality but being the smallest with respect to the 4 faculties of the university, it does not have much bargaining power to influence strategic decisions of institutional policy. And this is where the main problem for our study lies, formalizing a permanent teleworking initiative agreed upon by all parties, but each party finds itself in very different situational contexts in terms of structure and resources, in addition to wide differences in union policy interests and general administration.

As a result of the COVID-19 pandemic, the Faculty of Engineering has been implementing the teleworking modality partially and temporarily to correct the problem of confinement required by government entities. From this situation, the idea arises to think about a possible permanent implementation of the teleworking modality for the activities of the non-teaching staff of the Faculty of Engineering. This requires, in the first place, evaluating the current functioning in the academic and administrative management of the faculty, and thinking about a permanent project design and formalizing the initiative in institutional terms. In recent times, teleworking has established itself as a practice in expansion at a global level, driven mainly by technological advances and information and communication systems. This context began the fourth industrial revolution, as described (Aguilar, 2019) in his book on Industry 4.0 and its impact on productive development. The COVID-19 pandemic further deepened this dynamic in all productive areas, according to Atoche Pacherrres, García Chacchi, and Medina Sotelo (2023). Many organizations have been forced to promote teleworking as an alternative to continue with their productive operations, while finding a valid option to minimize costs and offer more favorable working conditions for staff. The main challenge is to achieve a sustainable balance between an optimal level of productivity and a state of well-being of the personnel involved.

The need to formalise permanent teleworking is closely linked to the most contemporary socio-labour transformations, as identified (Diniz et al., 2024). Universities, as strategic spaces for knowledge transfer, are not alien to this context. Moreover, they have the responsibility of leading creative and innovation processes that respond to the demands of an increasingly accelerated technological environment, as described (Fernández, 2020). Incorporating new modalities such as teleworking should not be interpreted only as a benefit for staff, but as a strategy to strengthen productive efficiency, and improve the quality of academic and administrative service.

From this approach, telework should not be conceived only as a response to exceptional and emergency situations, as described (Ministry of Labor and Employment, 2019) but as an opportunity to design new forms and methodologies of work organization, which facilitate the optimization of processes, expand the digital training of personnel and stimulate more collaborative models. According to the new trends of socio-productive behavior.

The new digital context of profound cultural transformations, as described by Foster, Hassard, Morris, and Wolfram Cox (2019) extends transversally to all disciplines and areas of knowledge. The academic, business and political spheres have been debating this problem for several years. There are many opinions regarding technological progress and its impact on work activities. Technology advances much faster than social, cultural, and economic issues as they declare (Vieira & Rodrigues, 2023). The main problem will be to solve the best way to join the new technological wave without too many setbacks, and to achieve an adequate transition of work modality for the benefit of the university community.

Since the pandemic, teleworking has become the best solution since the emergence of the COVID-19 pandemic. A modality that was perfectly adapted to the new critical social and economic context of the time. Currently, after the pandemic, there is practically no company or organization that does not implement, at least partially, the teleworking modality in some of its productive and commercial areas. A methodology that has overcome the initial prejudice and has established itself as a new approach capable of benefiting both the business community and the employees of an organization.

Teleworking is the present and the future. A new modality that adapts to the sociocultural changes that society is experiencing at a global level. This is the main reason for the choice of this modality by companies and organizations, as they clearly state (Felstead & Henseke, 2017). This context invites us to investigate better ways to articulate teleworking in organizational production processes. It is necessary to train teleworking staff in technical and emotional skills, as demonstrated (Morikawa, 2022) with one of the most necessary skills being

the ability to adapt to highly dynamic environments, as noted (El Kadri Filho & de Lucca, 2022). This means taking on the challenge of learning new skills that require more effort than working remotely.

Many scientific studies show how teleworking impacts emotional issues that are different from conventional work, as described (Dias, Carvalho, & Sampaio, 2022). The main difference lies in the communication environments when teleworking. Organizations that want to implement teleworking or are in an incipient stage of development, understand that it is necessary to train personnel to optimize productive performance and achieve general well-being of the personnel involved, as they state (Alsawafi, Lemke, & Yang, 2021). These are not exclusively questions of institutional strategy, it is the combination of organizational tactics together with the accompaniment of professional development in the technical and human capacities of the personnel that facilitate the achievement of better operational performance indicators in their jobs, as shown in their studies (Bossink & Blauw, 2002).

The main challenge is to know the transition process between a conventional work scheme and the new approach proposed by teleworking. To know the variables that have a significant impact during this transition of models, as stated (Galvão Junior, Penha, Gonçalves, & Silva, 2024). When implementing a digital transformation process in any sector or productive area, it is vital to have an in-depth knowledge of the main variables involved in the process, and the ability of the people subjected to this process to adapt, according to empirical demonstrations by Engberg, Hörte, and Lundbäck (2015). This new work methodology shows the need to develop new specific professional skills and abilities that require adequate training, and that differ widely from the usual dynamics of adaptation in the insertion of a new face-to-face job, according to studies by Cachutt-Alvarado, Méndez-Gómez-Humaran, and Velasco-Álvarez (2024).

In short, the study shows the main results that were obtained during a transitory experience of teleworking carried out in the Faculty of Engineering during the COVID-19 pandemic. The study corresponds to an exploratory investigation. A diagnostic tool was used, which has already been used in other universities and companies successfully, and presented to the scientific and academic community in 2018 by Maresca (2018). The diagnostic tool is called the "Telework Efficiency Index", and it makes it easier to measure the productive performance in teleworking, according to Maresca (2024).

The tool addresses different analysis approaches from psychological and emotional aspects to more technical and operational considerations in the exercise of teleworking, according to Moirano, Ibarra, Riera, and Baritoli (2021). The research faced several barriers to entry that made it difficult to obtain some clarity in the interpretation of some answers. The great difficulty was evidenced in the lack of commitment and in a resistance to participate in the study. The need to submit to being observed and questioned is not usually very pleasant for the person being evaluated, according to Vida Fernández and Durán Bernardino (2022). The tensions generated in this type of procedure are common and were clear in the experience.

The experience of teleworking during the pandemic evidenced a series of issues related to the difficulties present in institutional management by the managers responsible for leading teleworking in their area or sector, and the absence of a regulatory structure agreed upon by all parties to develop remote work. In this context, improvisation becomes a common development strategy, and it is counterproductive to guarantee optimal levels of efficiency in teleworking, according to Maritan et al. (2023). Meanwhile, the interaction of teachers, students and non-teaching staff inevitably requires adapting new workflows and interpersonal communications for teleworking. A profound institutional redesign that far exceeds the digitization of administrative and academic procedures.

Likewise, another central aspect during the experience is identified, such as the need for emotional skills to telework. This context raises questions such as: What emotional and self-management skills are necessary to develop teleworking? How does autonomy and emotional self-regulation influence staff productivity and well-being? What are the differences with respect to a face-to-face work modality? Emotional self-regulation and assuming work responsibilities autonomously are a vital challenge for the development of teleworking.

All these skills mentioned above are also necessary in a face-to-face work modality, but under this new scheme and dynamics, many of them are significantly differentiated. You could say that the approach is pretty much the opposite. Greater autonomy is transferred to the staff, but also greater responsibility, when self-management and decision-making change significantly. The lack of direct supervision, as is often the case in

face-to-face work, along with other activities and personal interests that the home demands, requires another type of work maturity. This confirms the need to invest in training and adaptation programs that address not only technical issues, but mainly psycho-emotional and self-management aspects.

Finally, for organizations that intend to advance in hybrid or fully remote work modalities, it will be necessary to investigate in depth the variables that generate a greater impact on productive efficiency, and in those areas where interrelated administrative and academic activities coexist, such as educational institutions at all levels.

METHODOLOGY

The objective of the study was to analyze the context of the partial implementation of teleworking in the academic management activities of the Faculty of Engineering. 12 people participated, corresponding to all the staff of the faculty, including the dean, the academic secretary, five career directors and five administrative employees. The sample had an average age of 35 years, with a distribution of 70% men and 30% women. The participation of all the staff allowed to obtain a comprehensive and detailed vision of the operation of this remote work modality

The Telework Efficiency Index was used as the main diagnostic tool, facilitating the analysis of the results obtained. The index is constructed from a set of independent variables, classified as primary and secondary, where each one has different weightings to estimate the level of general efficiency of the modality, as shown in (Figure 1). Each variable is composed of five thematic criteria that are assessed through online surveys. This structure allows us to investigate both the capacities of the people who telework and all the resources necessary to develop the modality in optimal conditions.

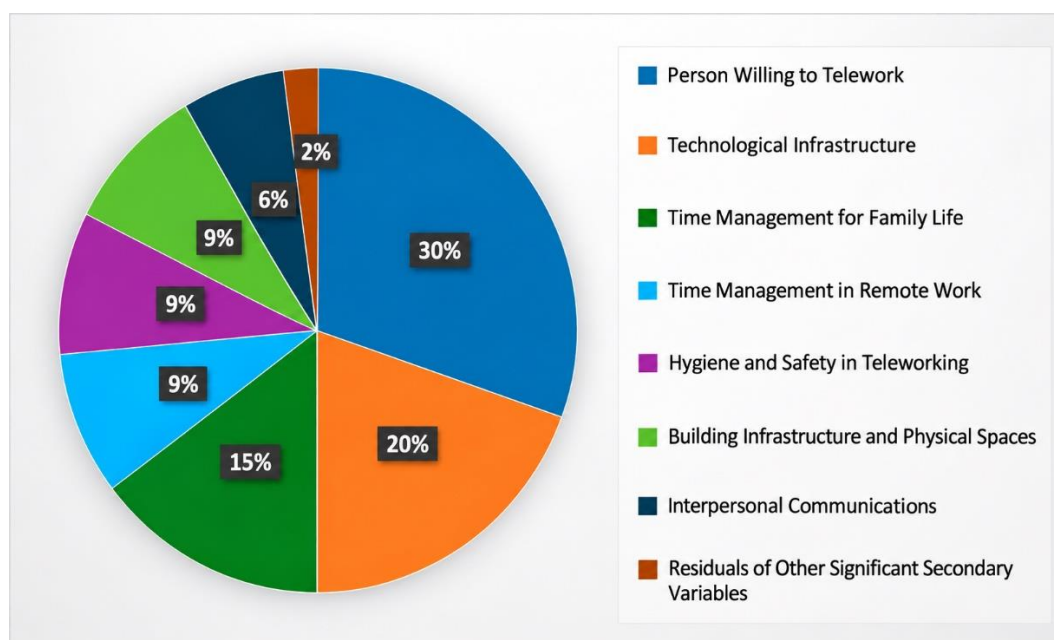


Figure 1: Specific weight of each primary and secondary variable of the telework efficiency index

The primary variables are represented by two necessary and sufficient components for teleworking, both the willingness of the person to telework and the conditions of available technological infrastructure. On the other hand, the secondary variables include complementary and support dimensions that enhance the primary variables in their autonomy, such as the organization of time for personal and family activities, the management of time dedicated to teleworking, the safety and hygiene conditions where teleworking occurs,

the dynamics of interpersonal communications, among other residual but relevant aspects that condition teleworking.

Once the results of each variable and their corresponding thematic criteria evaluated have been obtained, they are integrated into the analytical formulation of the index, constituting a single value in the index between a scale of 0 and 10 points. 10 points being the highest possible assessment of the index, representing the maximum possible efficiency in teleworking.

Usually, in certain study contexts that are highly uncertain, a smoothing correction is applied to the result of the index in the event of estimation errors in data collection. But on this occasion, we have not considered it for this study, due to the level of quality of the sources obtained and the data obtained. On the other hand, the diagnostic instrument makes it possible to graphically represent the situation being analyzed. The case may present a state called "convergence", when the primary variables obtain a higher valuation score with respect to the secondary variables, and a state of "divergence" when the secondary variables obtain a higher valuation than the primary variables. Likewise, a third alternative can be presented regarding a state of "neutrality" when both sets of primary and secondary variables coincide in their final assessment.

RESULTS

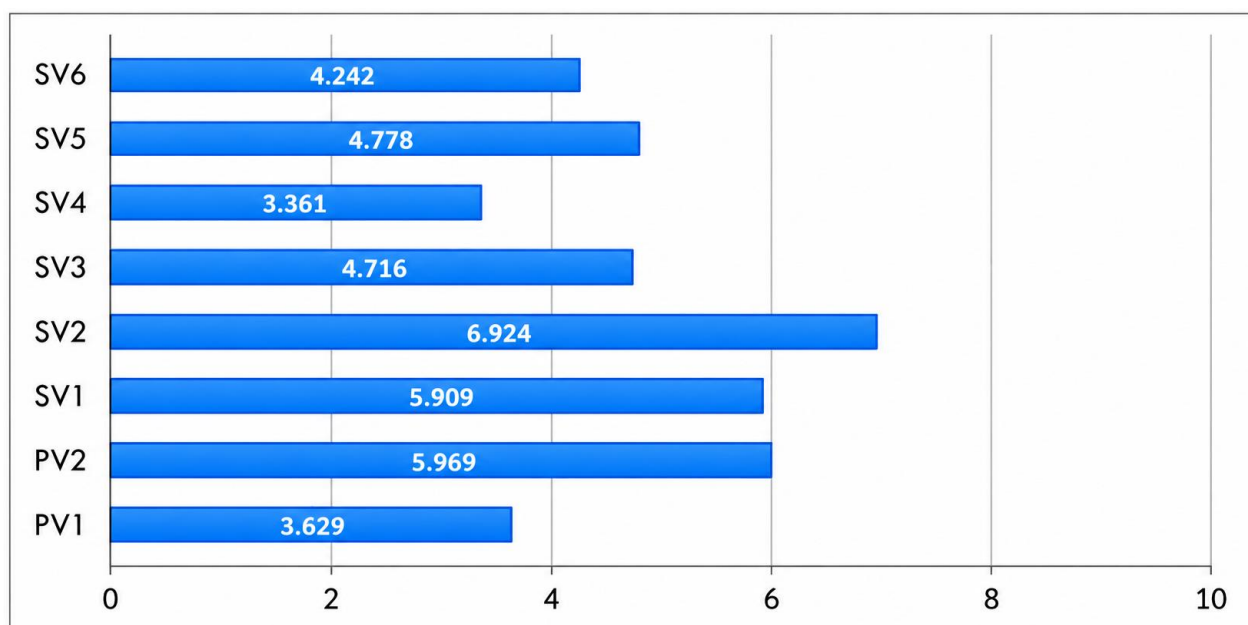
Next, the results obtained for each of the primary and secondary variables that make up the efficiency index are presented. Each variable was evaluated using five conceptual criteria, which were assessed individually and whose results are summarized in (Table 1).

Table 1: Evaluations of primary and secondary variables and their respective endpoints

Variables	Valued concept	Score
Secondary 1	Degree of interest in family life.	1.84
Secondary 2	Degree of interest in the work tasks performed.	1.592
Secondary 1	Availability for personal procedures.	1.575
Secondary 2	Operational prowess in technological devices.	1.521
Secondary 2	Planning and organization of work tasks.	1.454
Secondary 3	Confidentiality in the handling of information.	1.441
Primary 2	Technological platform for teleworking.	1.336
Primary 2	Technological equipment for teleworking.	1.295
Primary 1	Psychological and physical health status.	1.293
Secondary 2	Level of adaptation in teleworking activity.	1.288
Secondary 1	Availability for leisure activities.	1.263
Primary 2	Level of technical knowledge.	1.248
Secondary 5	Communication with their superior or responsible area.	1.239
Secondary 6	Fulfillment of work objectives.	1.207
Primary 2	Network connection quality.	1.092
Secondary 3	Safety in the workplace	1.089
Secondary 2	Level of commitment in terms of work.	1.069
Secondary 5	Communication with colleagues in the same sector.	1.069
Secondary 6	Financial and accounting statements of the sector/company.	1.058
Primary 2	Quality of technical support for teleworking.	0.998
Secondary 4	Availability of furniture and work elements.	0.985
Primary 1	Development of creativity and imagination for teleworking.	0.983
Secondary 6	Macro and microenvironment for teleworking.	0.883
Secondary 5	Interpersonal relationships with other sectors of the organization.	0.862
Secondary 5	Quality of communications in technological media.	0.835
Secondary 1	Availability for vocational training.	0.833
Secondary 4	Building structure for teleworking.	0.821
Secondary 3	Hygiene status and personal clothing for teleworking.	0.774
Secondary 5	Quality of messages exchanged during teleworking.	0.773

Variables	Valued concept	Score
Secondary 3	Cleaning, order and maintenance of environments for teleworking.	0.737
Secondary 6	Legal and regulatory context for teleworking.	0.721
Secondary 3	Level of security in technological platforms.	0.675
Primary 1	Motivation and interest in teleworking.	0.589
Secondary 4	Layout and comfort of the environment for teleworking.	0.566
Secondary 4	Bright and airy environment for teleworking.	0.562
Primary 1	Socialization with the outside world in teleworking activities.	0.542
Secondary 4	Design of spaces for teleworking.	0.427
Secondary 1	Interest in tourism by exercising teleworking.	0.398
Secondary 6	Design of a contract for teleworking.	0.373
Primary 1	Professional/personal growth from teleworking.	0.222

Consequently, the final values obtained by each primary and secondary variable of the index are shown (Figure 2).



Note: PV = Primary variable; SV = Secondary variable.

Figure 2: Final results for the primary and secondary variables of the telework efficiency index

In comparative terms, the primary variables, which include the person who teleworks and the quality of the available technological infrastructure, show lower values on average than the set of secondary variables, which shows a significant difference between the psycho-emotional and technical capacities of the person who teleworks with respect to the factors linked to the organization such as the scope and communication dynamics for telework. This difference exposes, in a way, that the aspects directly associated with the ability to telework present an insufficient level of development compared to other complementary dynamics that influence the overall experience of teleworking.

It is observed that both sets of primary and secondary variables show values below the mean, according to the rating scale in terms of efficiency presented by the index. At the quantitative study level, the primary variables reached a total value of 2.2825 points, while the secondary variables had a total value of 2.60796 points. Although the secondary variables have a slightly higher value than the set of primary variables, both sets of variables remain within a low level, indicating the existence of cross-sectional limitations that influence the performance of the modality.

Another aspect to consider, regardless of the size of the population analyzed, is the possibility of diagnosing 100% of the academic and administrative structure of the faculty, thus obtaining an optimal level of quality so as not to consider the application of a correction factor to the study model. Otherwise, if we were to use a correction factor, it would not significantly affect the final assessment of the index either. This situation exposes the need to intervene in multiple dimensions, from structural and technological issues to attitudinal and aptitude methodologies of work that impact on the efficiency of the modality.

The results obtained from the index show a relatively weak initial competency base. This context not only links the lack of availability of material and strategic resources, but also significantly exposes the challenges that must be faced from a different approach to work than the traditional one. The transition that is experienced from a face-to-face model to another remotely constitutes a socio-cultural transformation that requires adaptive and progressive processes under a well-defined institutional framework.

In terms of quantitative analysis, the index reaches a final value of 4.89046 points on a scale of 0 to 10 points, indicating incipient performance with respect to the desirable standards for optimal performance. This result reveals that current capacities are insufficient to guarantee an efficient implementation, according to the necessary requirements for adequate academic management in university environments.

On the other hand, a minimal difference is observed between the relative weight of the primary variables and the secondary variables. Both sets of variables require improvements in various aspects in terms of emotional, technical and operational skills to achieve an above-average performance scenario on the scale set out in the index. The positive aspect is that there is a certain parity in the set of primary and secondary variables, and the negative issue is a greater strength in the secondary variables over the primary ones. In other words, there is greater development in the complementary and support competencies of teleworking than in the sufficient and necessary variables to exercise telework, assessments that coincide with previous studies, as stated by Núñez-Cortés Contreras and Sagardoy de Simón (2021).

The current context is presented as a somewhat incipient and divergent scenario, but with balanced valuations between both sets of variables. The primary variables, focused on the person who teleworks and the technological infrastructure, show their greatest deficit in the criterion of opportunity for professional growth with 11.1%, followed by the possibility of socialization in teleworking with 27.1% and the motivation generated by the modality with 29.45%.

Regarding the technological infrastructure needs, all the criteria evaluated are with a better score, with the quality of technical support obtaining the worst rating with 49.9%. From this first analysis, the difference in terms of efficiency between the variable of the person who teleworks with 3.629 points and the technological infrastructure with 5.969 points, stands out, the latter being the second best valued of all the variables of the index. Regarding the secondary variables, articulating teleworking with family life and leisure activities is 92% efficient, being the best assessment of the entire study. It is followed by interest in work activities in teleworking with 79.6%, availability for personal procedures with 78.75%, the use of technological devices with 76.05%, the level of planning for teleworking activities with 72.7%, and confidentiality in information systems with 72.05%.

Meanwhile, the lowest rating was obtained by the opportunity for professional growth with 11.1%, the design of a new contract for teleworking with 18.65%, the possibility of tourism with 19.9%, and structural design aspects in the field where teleworking is carried out with 21.35%.

In general terms, there is still a view to conventional work with expanded benefits instead of considering a disruptive modality of work organization, coinciding with the appraisals of Yoon and Thye (2002). However, some aspects that describe teleworking globally are highlighted, such as sharing more time with the family, leisure activities and greater flexibility in other non-work activities.

DISCUSSION

The study reveals that there is still no collective awareness of a sociocultural change that the teleworking modality entails, as it argues in its publication (Alles, 2020). Teleworking continues to be thought of in a traditional approach along with some concrete and additional benefits. Teleworking does not seem to be a

disruptive phenomenon. However, creativity and imagination are necessary for teleworking, through a noteworthy consideration in the study with 49.15%, coinciding with some arguments raised by Álvarez and Parras (2022). On the other hand, the psychological aspects in teleworking amount to 64.65%, with these last two criteria being the most valued for the primary variable of person willing to telework. On the other hand, the primary variable of technological infrastructure obtains better results in all its evaluation criteria by a wide margin, exceeding the maximum possible average rating. Therefore, from the set of primary variables, the best ratings are those that refer to the association of labor flexibility. Similarly, the technical and operational knowledge necessary for teleworking and the possibility of not physically moving to the faculty's facilities were also demonstrated (García Torres, 2022).

Teleworking promotes a greater sense of work autonomy, which can help reduce the stress associated with conventional face-to-face work environments. Although stress may persist under teleworking arrangements, it emerges within a different organizational context. In addition, positive evaluations were observed in several secondary variables, exceeding 60%-65% of their maximum possible scores, including the quality of the technological platform and equipment, flexibility in responding to unexpected changes during the working day, availability for leisure activities, the quality of interpersonal communication within the work team, and the achievement of work objectives. These findings suggest that teleworking may contribute not only to productivity but also to personal well-being and a more sustainable work-life balance, particularly when greater autonomy is accompanied by adequate organizational support. However, teleworkers do not always appear to be fully aware that this modality represents a different work context, requiring greater self-discipline and time-management skills for the effective development of activities, as suggested by Fotiadis, Abdulrahman, and Spyridou (2019). Therefore, the sustainability of teleworking as a long-term organizational model may depend on balancing productivity requirements with employees' well-being, autonomy, and capacity for self-management.

Meanwhile, issues related to interpersonal links between different areas and/or departments, technology-mediated communications, opportunities to expand professional training, the level of concentration required by the modality, the conditions of personal hygiene and clothing in teleworking, the regulatory framework and security in information systems are below the maximum possible average between 30% and 50%.

According to the result of the index, it shows a certain parity between the set of primary and secondary variables, but with a greater balance between the secondary variables. That is, those variables that support the modality. This clearly indicates that the primary variables, necessary and sufficient for teleworking to exist, turn out to have an extremely incipient development.

On the other hand, the analysis identifies the imperative need to be adequately trained with strategic plans that facilitate the transition from one model to another, assuming that the average age of the participants in the study amounts to approximately 45 years, and hinders the need for changes in habits, at least in the short term. Very forceful. The study presents a segment of profiles that are not very inclined to adopt certain changes in the way they work. This statement reaffirms the hypothesis developed by Arruga (2020).

People continue to support teleworking as a flexible methodology that extends benefits to employees, and not as a disruptive change in the organization of work, as defined (Miñarro, 2020) in previous essays. It is no coincidence that the interests most related to family activities and personal leisure were the ones that obtained the best grades. On the contrary, more structural issues, such as the regulation of activity, are not yet present in the collective consciousness of those who telework, as manifested (Escanciano, 2021).

In a way, teleworking generates the feeling of greater freedom in the work dynamics itself. The efforts of people who telework tend to focus more on the enjoyment of more flexible activities than on the development of professional skills required by the modality. In this sense, it is no coincidence that the most valued criterion was the psychological aspect in the primary variable of the person who is preparing to telework. Studies on the psychological health and emotional management of people in the workplace indicate that they are extremely relevant to achieving optimal performance in teleworking, as demonstrated (Braun & Clarke, 2006).

Companies with experience in teleworking activities design strategic training and adaptation plans through recreational and training activities to obtain better performance from the staff, according to demonstrable cases they claim (Standen, Daniels, & Lamond, 1999). The objective is specifically to offer operational instructions and stimulate creative development for the development of teleworking activities. In this sense, the improvement in the state of well-being of the person who teleworks is verifiable, according to statements by Poquet Catalá (2020).

The empirical evidence from previous studies allows us to consider that efficiency in teleworking does not depend only on the provision of technological resources or training in the use of digital tools, but requires a systemic integration that includes organizational culture, management processes, regulatory frameworks, and individual and group operational activities. The individual predisposition to telework is one of the weakest factors in the study. A notably low valuation is observed in motivational aspects, in the feeling of professional growth and in the acceptance of new work dynamics such as cognitive adaptation and self-discipline.

As for the lack of a sense of professional growth in the face of this new modality, it is a relevant indicator to consider, since it favors minimizing the efforts and commitment of the people involved. This situation can produce stagnation at the productive level in administrative and academic management. The presence of a talent management program that links teleworking with training opportunities and participation in innovative projects can reinforce the sense of progress and institutional belonging.

In reference to the secondary variables, the positive consideration of criteria such as family reconciliation and availability for personal or leisure activities are interpreted as an attractive situation for teleworking. This interpretation is similar to recent studies that show an increase in quality of life in general, in addition to an increase in productivity. On the other hand, when organizations do not establish clear rules, stable communication channels, and performance tracking, people tend to improvise solutions based on their own experience. This generates heterogeneity in the organizational culture, which is often harmful to the fulfillment of the proposed work objectives.

Likewise, the results of the study show an institutional tension between the traditional work approach and the demand of the new modality. University systems are characterized by a strong bureaucratic imprint, where innovation processes tend to advance with greater difficulty. However, from a psychosocial aspect, the results indicate that the teleworking modality was interpreted in a large part of the staff as a temporary adaptation rather than as an opportunity to improve work practices. This largely explains the high ratings in terms of flexibility and work-life balance, while aspects more related to the professionalization of remote work received lower ratings. This shows that teleworking in this study was perceived as a circumstantial benefit rather than as a professional challenge.

On the other hand, the wide gap between the two primary variables is highlighted. The high valuation of technological infrastructure compared to the low valuation of the person who teleworks. Therefore, the institution must not only ensure adequate structural and material conditions but also promote the strengthening of people's cognitive and emotional development so that it is sustainable over time.

Finally, the study shows an initial phase, characterized by partial advances and structural limitations, which does not yet conceive of teleworking as a modality that implies a profound change in the organization of work. The transition to an efficient teleworking model requires university institutions that assume the risk and commitment to long-term strategic actions, that is, a comprehensive approach that addresses professional competencies, regulatory frameworks, standardization of operations, updating of technologies and the development of a new organizational culture.

CONCLUSIONS

The consolidation of teleworking cannot be limited to an isolated effort by the Faculty of Engineering, but to reach a broad consensus that includes the entire university. The successful implementation of this modality depends on all areas and departments sharing common strategic interests. The absence of an expanded agreement generates difficulties, both in terms of overall productive performance and the perception of inequity between the different sectors of the university. It is essential to promote organizational culture

through a constructive dialogue where all actors participate, not only the authorities and staff of the areas affected by teleworking, but also the teaching and non-teaching staff, and student delegates of the entire university institution, with the aim of constituting a consolidated strategic framework for the exercise of teleworking.

On the other hand, some resistance observed indicates a fear of change together with the presence of a generation not very inclined to take on new work challenges. The transition to teleworking requires new work routines and a profound cultural change.

The latter, the most difficult thing for all parties to assume. As for the investment of resources, it is important to guarantee as a basis, technological equipment, stable internet access and adequate furniture to carry out activities in optimal conditions. Likewise, a gradual training policy in the management of technological tools and communication skills, and in particular, in the development of psychological aspects related to autonomy and emotional well-being. An integrative program must be designed, where each initiative for the development of skills and competencies is complemented by the next through a common objective, and always oriented toward efficiency in teleworking.

Another critical assessment that stands out in the study is the limited knowledge that is generally available of the operational dynamics necessary to adequately develop a teleworking modality. Most of the institutions that decide to promote teleworking dismiss issues of analysis such as the new designs of work contracts, hygiene and safety conditions, the provision of electricity, the quality of connectivity and the environmental conditions for a sustainable development of the modality.

This study has some limitations that should be considered when interpreting its findings. The research was conducted with a small sample from a single Faculty of Engineering, which limits the generalizability of the results to other university contexts. Nevertheless, the study contributes by providing an empirical assessment of the conditions associated with the initial implementation of teleworking and by identifying organizational, technological, and psychosocial factors that should be considered in the consolidation of this modality. Future research should expand the sample to include other faculties and universities and examine longitudinally how productivity, employee well-being, work-life balance, and organizational sustainability evolve as teleworking becomes more established. Further studies could also compare different hybrid and fully remote models to identify the conditions that best support sustainable productivity while safeguarding the well-being of employees. In conclusion, the study shows an incipient development to consolidate teleworking. Success will depend on the ability of the educational institution to generate internal consensus and establish clear rules in teleworking. Only through a strategic and participatory approach will it be possible to visualize opportunities for improvement.

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INSTITUTIONAL REVIEW BOARD STATEMENT: The study was conducted with verbal authorization from the Faculty of Engineering at the Universidad de la Marina Mercante, Argentina. No formal Institutional Review Board (IRB) approval was obtained for this study. The study was considered low risk, and no personally identifying information was included in the analytical dataset or reported in the manuscript.

INFORMED CONSENT STATEMENT: Prior to data collection, participants were informed of the purpose of the research, the voluntary nature of their participation, and the confidential and anonymous handling of their responses. Verbal informed consent was obtained from all participants prior to participation.

TRANSPARENCY: The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

COMPETING INTERESTS: The author declares that there are no conflicts of interests regarding the publication of this paper.

DISCLOSURE OF AI USE: The author acknowledges the use of ChatGPT solely for the translation and linguistic refinement of selected sections of this manuscript.

REFERENCES

- Aguilar, L. J. (2019). *Industry 4.0: The fourth industrial revolution*. Mexico: Alfaomega.
- Alles, M. A. (2020). *Managing without being present*. Argentina: Granica.
- Alsawafi, A., Lemke, F., & Yang, Y. (2021). The impacts of internal quality management relations on the triple bottom line: A dynamic capability perspective. *International Journal of Production Economics*, 232, 107927. <https://doi.org/10.1016/j.ijpe.2020.107927>
- Álvarez, R. D., & Parras, A. (2022). *The new communication*. Spain: Dykinson.
- Arruga, S. M. C. (2020). *Digital transformation in labor relations*. Spain: Wolters Kluwer.
- Atoche Pachterres, M. Á., García Chacchi, D. V., & Medina Sotelo, C. G. (2023). Remote work in times of pandemic. *Apuntes Universitarios*, 13(1), 319–332. <https://doi.org/10.17162/au.v13i1.1330>
- Bossink, B. A. G., & Blauw, J.-N. (2002). Strategic ambitions as drivers of improvement at DaimlerChrysler. *Measuring Business Excellence*, 6(4), 5-11. <https://doi.org/10.1108/13683040210451651>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qpo630a>
- Cachutt-Alvarado, C., Méndez-Gómez-Humaran, I., & Velasco-Álvarez, J. (2024). Personal competencies for work–family integration and its relationship with productivity and comprehensive health in salaried professionals. *Safety*, 10(1), 28. <https://doi.org/10.3390/safety10010028>
- Dias, A. M., Carvalho, A. M., & Sampaio, P. (2022). Quality 4.0: Literature review analysis, definition and impacts of the digital transformation process on quality. *International Journal of Quality & Reliability Management*, 39(6), 1312-1335. <https://doi.org/10.1108/IJQRM-07-2021-0247>
- Diniz, F. F., Gadelha, A. A. B., de Souza, J. C. M., Ramos Filho, R. d. S., Santos, J. J. d. N., Gadelha, P. M. B., & Monteiro, V. E. D. (2024). Bibliometric analysis of sustainability in Industry 4.0: A systematic review. *Revista de Gestão Social e Ambiental*, 18(2), e04078. <https://doi.org/10.24857/rgsa.v18n2-057>
- El Kadri Filho, F., & de Lucca, S. R. (2022). Telework conditions, ergonomic and psychosocial risks, and musculoskeletal problems in the COVID-19 pandemic. *Journal of Occupational and Environmental Medicine*, 64(12), e811-e817. <https://doi.org/10.1097/JOM.0000000000002704>
- Engberg, R., Hörte, S.-Å., & Lundbäck, M. (2015). Strategy implementation and organizational levels: Resourcing for innovation as a case. *Journal of Organizational Effectiveness: People and Performance*, 2(2), 157-175. <https://doi.org/10.1108/JOEPP-03-2015-0007>
- Escanciano, S. R. (2021). Monitoring and control of workers' mental health: preventive and remedial aspects. *Journal of Legal, Labor and Social Security Studies*, 2, 19-55.
- Felstead, A., & Henseke, G. (2017). Assessing the growth of remote working and its consequences for effort, well-being and work-life balance. *New Technology, Work and Employment*, 32(3), 195-212. <https://doi.org/10.1111/ntwe.12097>
- Fernández, M. (2020). *Industry 4.0: Technologies and management in the digital transformation of industry*. Spain: Independently Published.
- Foster, W. M., Hassard, J. S., Morris, J., & Wolfram Cox, J. (2019). The changing nature of managerial work: The effects of corporate restructuring on management jobs and careers. *Human Relations*, 72(3), 473-504. <https://doi.org/10.1177/0018726719828439>
- Fotiadis, A., Abdulrahman, K., & Spyridou, A. (2019). The mediating roles of psychological autonomy, competence and relatedness on work-life balance and well-being. *Frontiers in Psychology*, 10, 1267. <https://doi.org/10.3389/fpsyg.2019.01267>
- Galvão Junior, G. S., Penha, R., Gonçalves, M. L. d. A., & Silva, L. F. d. (2024). Proposal for a model based on elements and digital transformation project management practices to support business agility. *Revista de Gestão Social e Ambiental*, 18(4), e04816. <https://doi.org/10.24857/rgsa.v18n4-095>
- García Torres, A. (2022). Workplace accidents in teleworking: Challenges and perspectives. *Revista Justicia & Trabajo*(1), 19. <https://doi.org/10.69592/2952-1955-N1-DICIEMBRE-2022-ART4>
- Maresca, G. (2024). Diagnostic instrument design: Teleworking efficiency index. *Revista de Gestão Social e Ambiental*, 18(8), e05568. <https://doi.org/10.24857/rgsa.v18n8-083>
- Maresca, G. G. (2018). *Remote work today: Current situation and challenges*. Argentina: UNDAV Ediciones.
- Maritan, F. B., Soliani, R. D., Drumond, T. D. R., Satrapa, H. F. D. M., Oliveira, P. R. d. S., de Lima Junior, F. B., . . . de Oliveira, G. C. (2023). Cost analysis in the transition of projects to remote work during the COVID-19 pandemic. *Revista de Gestão Social e Ambiental*, 18(1), e04245. <https://doi.org/10.24857/rgsa.v18n1-014>
- Miñarro, Y. M. (2020). *Occupational safety and health*. Spain: Labor Documentation.
- Ministry of Labor and Employment. (2019). *Teleworking in Argentina: First national white paper on good practices in teleworking, remote work and connected work*. Argentina: Ministry of Labor and Employment.
- Moirano, R., Ibarra, L., Riera, V., & Baritoli, F. (2021). Impact of teleworking and social isolation on work-related stress: A preliminary diagnosis for Argentina. *Accounting and Management Writings*, 12(1), 72-102.
- Morikawa, M. (2022). Work-from-home productivity during the COVID-19 pandemic: Evidence from Japan. *Economic Inquiry*, 60(2), 508-527. <https://doi.org/10.1111/ecin.13056>
- Núñez-Cortés Contreras, P., & Sagardoy de Simón, I. (2021). *Critical issues regarding remote work (following Royal Decree-Law 28/2020, of September 22)*. Spain: Dykinson.
- Poquet Catalá, R. (2020). Health surveillance, corporate management power and the worker's right to privacy, a conflictive triangle. *Lex Social: Revista de Derechos Sociales*, 10(1), 382-405. <https://doi.org/10.46661/lexsocial.4550>
- Standen, P., Daniels, K., & Lamond, D. (1999). The home as a workplace: Work–family interaction and psychological well-being in telework. *Journal of Occupational Health Psychology*, 4(4), 368–381. <https://doi.org/10.1037/1076-8998.4.4.368>

- Vida Fernández, R., & Durán Bernardino, M. (2022). *Teleworking and work-life balance from a gender perspective*. Spain: Dykinson.
- Vieira, K. L. S. S., & Rodrigues, M. J. (2023). Contemporary acceleration in light of the technological revolution: An approach to capitalist accumulation through digital means. *Geographic Workshop*, 17(2), 366–378.
- Yoon, J., & Thye, S. R. (2002). A dual process model of organizational commitment: Job satisfaction and organizational support. *Work and Occupations*, 29(1), 97-124. <https://doi.org/10.1177/0730888402029001005>