THE CONTENT PRODUCTION ROUTINE IN THE PANDEMIC CONTEXT

A ROTINA DE PRODUÇÃO DE CONTEÚDO NO CONTEXTO PANDÊMICO

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Abstract

The COVID-19 pandemic led Brazil to implement social distancing measures, challenging the operation of various organizations. This study aimed to identify how such a context impacted the content production routine in a media and entertainment company. After documentary analysis, interviews, and participant observation, three categories emerged: (i) emergence of guiding and facilitating artifacts; (ii) imposition of new competence, and (iii) emergence of new production models. Findings suggest that the interplay between the influence of artifacts on the ostensive aspect of routines and operational practice required new competencies from the involved actors.
Keywords: Organizational routines. Artifacts. Competence. Pandemic.

Resumo

A pandemia de COVID-19 levou o Brasil a implementar medidas de distanciamento social, desafiando a operação de várias organizações. O objetivo deste estudo foi identificar como tal contexto impactou a rotina de produção de conteúdo em uma empresa de entretenimento. Após análise documental, entrevistas e observação participante, três categorias surgiram como resultados: (i) emergência de artefatos orientadores e facilitadores, (ii) imposição de novas competências e (iii) surgimento de novos modelos de produção. Os resultados sugerem que o imbricamento entre a influência dos artefatos no aspecto ostensivo das rotinas e a prática operacional exigiu novas competências dos atores envolvidos.
Palavras-chave: Rotinas Organizacionais. Artefatos. Competência. Pandemia.

Introduction

In December 2019, China reported severe pneumonia cases to the World Health Organization (WHO) in the city of Wuhan. In January 2020, Chinese health authorities announced a new virus that could be transmitted between humans, and the city was quarantined (Fiocruz, 2020). On March 11, 2020, due to the virus's accelerated and increasing spread and severity in several countries, the WHO declared the outbreak a pandemic. In Brazil, the first case was confirmed at the end of February in São Paulo. Since then, the pandemic and government actions have varied, as mayors and governors have been authorized by the Federal Government to adopt measures they deem appropriate to preserve the population of their regions. On March 16, the Rio de Janeiro state government published a decree recognizing the public health emergency and adopting measures to combat the spread of the virus, such as the suspension of collective activities such as cinema and theater, a ban on holding public events, restriction of patient visitation to those diagnosed with COVID-19, and school closures (Rio de Janeiro, 2020).

On March 13, 2020, with the imminence of the state government's decree suspending non-essential services, the company, subject of this study – an entertainment content production center – oriented all employees to work remotely, when applicable, or stay at home until the resumption of face-to-face activities on an unknown date. The interruption of the activities led to rethinking the routines related to entertainment content production, culminating in relevant changes in the company's processes. The organization produces more than 3,000 hours of entertainment material per year. It counts on specialists from several areas: costume designers, art directors, set designers, editors, producers, authors, and actors. Nearly 5,000 people circulated daily at its premises (Documento Interno, 2017). This study adopts an interpretivist approach to answer the following research question: How did the COVID-19 pandemic impact the content production of an entertainment content production center?

Theoretical framework

This section presents the theoretical foundations supporting the research problem. The first topic refers to organizational routines, observing a) the ostensive and performative aspects structuring them; b) the central role of artifacts, c) and the routines' contribution regarding both stability and change (Feldman and Pentland, 2005). The second section deals with competence in an interpretative view (Sandberg, 2000) since the employees' competence is better understood from how they experience the content production routine than from a rationalistic analysis.

Organizational routines

Routines are a common part of everyday life in organizations. The concept of organizational routines was introduced in the academic literature by Stene in 1940. However, although it is a widely used term, its understanding is not fully consolidated, presenting different theoretical lenses (Baldessarelli, Lazaric, and Pezzoni, 2022). Based on the literature produced until the beginning of the twenty-first century, Feldman, and Pentland (2003, p. 96) defined that "an organizational routine is a repetitive, recognizable pattern of interdependent actions, involving multiple actors." The origin of routines can be explained by organizations' necessity to reduce costs, increase management control, or avoid conflicting procedures, as suggested by Nelson and Winter (1982). The organizational context can also lead to the emergence of routines as it facilitates some activities and favors repetition (Orlikowski, 2000).

While recognized as an essential aspect of organized work, organizational routines are regularly rated as a source of stability that leads to inertia, inflexibility, and negligence (Hannan and Freeman, 1983). However, this conception does not consider the agency of routines – i.e., people perform them – and empirical evidence points to flexibility and change (Feldman and Pentland, 2003; Feldman, 2000).

In 2003, Feldman and Pentland proposed a new theory about organizational routines that connects

stability and change. Feldman (2000) considers this theory a cycle initiated with ideas, which are converted into plans, manifested in actions, and, therefore, generate results. An evaluation of such results can provoke the desire to repair some procedure or give rise to a more daring variation of its practice, or even stimulate its expansion to amplify the consequences, thus characterizing the dynamics present in organizational routines (Feldman et al., 2016; Feldman et al., 2021). In other words, the cycle is stable but new, a little different each time it is operationalized. Routines consist of two aspects: ostensive and performative. The former is the ideal or formal routine scheme, while the latter represents the routine in practice, specific actions performed by specific people, time, and space (Feldman and Pentland, 2003). The subsections below offer a deeper discussion of the concepts supporting the theory used to analyze the results.

Ostensive aspect

The ostensive aspect of organizational routines can be identified as the generalized pattern of the routine that delineates the abstract perception of what the routine is (Feldman and Pentland, 2003). Artifacts that represent this aspect exist in various formats and embody the subjective understanding of different participants, gaining apparent objectivity and concreteness as different points of view align (Feldman and Pentland, 2003). The ostensive aspect resembles a script or narrative but cannot be considered a single entity. Even within a single company, it is possible to find different interpretations of a specific routine – each participant's understanding of the event depends on their role and point of view – and multiple variations on how to execute such a routine (Feldman and Pentland, 2005). It is impossible to specify enough detail for a routine to perform effectively. There are always particularities of the context that remain open.

The ostensive aspect alone cannot be considered a definition of routine. "Ostensive" is just a mental photograph of what is thought to be a routine (Feldman and Pentland, 2003) because when it is performed, the context and the power of agency of individuals make it susceptible to changes (Feldman, 2003; Turner and Fern, 2012). The ostensive aspect "does not simply guide performances (…); it is also created from the performances" as new performances become new abstract constructions (Pentland and Feldman, 2005, p. 795). Thus, the ostensive aspect does not encompass specific performances, representing only part of a picture of the organizational routine.

Performative aspect

Performances are specific actions performed by specific people at a specific time when they are engaged in an organizational routine (Feldman and Pentland, 2003). Practice, in a way, always involves something new and peculiar. Even in work environments where the process steps are described in detail, participants can adopt variations (Narduzzo, Rocco, and Warglien, 2000). Even routines that the same agent practices often need to be adjusted according to context (Feldman and Pentland, 2003). Thus, improvisation is a characteristic inherent to the performative aspect (Orlikowski, 2000). Improvising within organizational routines involves attention to the actions taken by other relevant participants in the process and the circumstances of the moment (Feldman and Pentland, 2005).

The performative and ostensive aspects have been discussed regarding the stability or change of routines over time. Among the issues involving the performative aspect, Feldman (2003) pointed out that when individuals think of the actions they perform in an organizational routine, they are actually thinking about the various possibilities of performance. Therefore, performance is specific among the alternatives that the agents mentally construct.

Artifacts

The word artifact comes from the Latin "art" and "factum" (something made) and can be understood as a product of mechanical work, a manufactured object (Oxford Advanced Learner's Dictionary, 2021;

Merriam-Webster.com Dictionary, 2021).

Artifacts are physical manifestations of organizational routines that enable or constrain their execution (Feldman and Pentland, 2005). They exist in significant volume and can include documents, clocks, schedules, metrics, charts, forms, invoices (Nelson and Winter, 1982), the spatial organization of machines, tools and materials, standard operating procedures (SOP), or computer systems (Cohen et al., 1996).

Managers create such artifacts in an attempt to model work practice. However, rules are only resources for action – which change according to the context – and do not determine actors' performance (Giddens, 1984). Despite being a physical representation, artifacts are constructed from subjective understandings that form the link between the ostensive and performative aspects (Feldman and Pentland, 2003). D'Adderio (2008; 2011) highlights the need to bring artifacts to the center of discussions on organizational routines. The author points out two reasons to justify this viewpoint: (1) the theoretical reason since the argument focuses on the fundamental role that artifacts play in routines production and reproduction, directly influencing the proportion and direction of changes in routines and, consequently, their evolution; and (2) the empirical reason, highlighting the key role of artifacts in the performance of routines in the organizations' daily operations. It is almost impossible, in the author's opinion, to imagine a routine executed from start to finish without involving the use of artifacts.

Pentland and Feldman (2008) suggest that artifacts are drivers and influencers of routine as generative systems of change. For the author, the artifacts are the source agents use to interpret the organization's expectations regarding the routine's performance (Pentland and Feldman, 2005).

Competence

Several studies were developed based on the work of Boyatzis (1982) and McClelland (1973) using the definition of competence as a set of qualifications necessary to achieve superior performance. Boyatzis (1982) proposes a model to understand the effective performance of a job through three interconnected elements: the organizational environment, the demands of the position, and individual competence. The author suggests that effective action and performance occur when all three critical components of the model are consistent and fine-tuned. The assumption was that the effective performance of a job refers to achieving expected results through specific actions consistent with the policies, procedures, and conditions of the organizational environment. Certain characteristics or abilities of a person enable them to demonstrate such actions, and these attributes can be called "competence."

Zarifian (2001) counters this point and explains that the concept of competence changes due to changes in the world of work. The three main changes leading to a redefinition of the concept are a) the person's exposure to events to gain experience; b) the emergence of communication as an essential component of the work, improving the quality of human interactions; and c) the understanding of work as providing a service to others (or clients) in order to understand their logic. Work is no longer fully objective and subjected to an end. It became a direct extension of the personal competence an individual acquires as a professional.

According to Sandberg (2000), managers willing to carry out efficient team development and training must understand the elements that constitute human competence at work. Based on the French school of Zarifian and Le Boterf, Sandberg (2000) proposes an interpretative approach as an alternative to the prevailing rationalistic point of view, in which competence is classified as a specific set of attributes to perform a job, focusing on knowledge, skills, and attitudes, as highlighted by Boyatzis (1982 apud Lisboa, 2008). For the author, it is possible to identify three approaches in the rationalistic perspective: worker-oriented, work-oriented, and multimethod-oriented. The worker-oriented approach is centered

on human attributes, typically represented by the so-called KSAs (Knowledge, Skills, Abilities) (Parry, 1996). This perspective is criticized for producing overly general descriptions of competence. The work-oriented analysis, in turn, has the advantage of arriving at more concrete and detailed descriptions of competence. However, the criticisms of this approach refer to the fact that a list of activities is insufficient and limited to indicate the attributes required from a professional. Finally, the multimethod-oriented approach combines the previous two, and thus, it is subjected to the same criticisms.

Alternatively, Sandberg (2000, p. 11) states that competence is constituted by the "meaning the work takes on for the worker", the manifestation of performance in action – people are not competent; they become competent in a given situation. Therefore, it is necessary to recognize the variation in practices and understand that the attributes used to carry out effective work are not free from the context. On the contrary, they are situational and dependent on it. Furthermore, as seen in the concepts of organizational routines, it is practically impossible for the performative aspect to be reproduced in the same way without the influence of the context. Sometimes, this aspect differs significantly from how it is described in artifacts such as training manuals and job descriptions. That said, it is understood that how people experience work is more relevant to their competence than their attributes. The individual's understanding of the situation assumes a central place, and based on this, competence studies under the interpretative paradigm find space (Sandberg, 2000; Ruth, 2006; Gherardi, 2009, 2009b).

The competence development approach adopted by Gherardi (2009) is a reference for discussing the practices adopted by work groups. The central premise of this perspective is that knowledge is not in people's minds but in work groups (Nicolini; Gherardi; Yanow, 2003). The author states that using a symbolic approach means conceiving that the organization is the product of the interpretation of its members' practices. The groups incorporated the set of meanings, and the practices were institutionalized. Competence in this context results from the production of the meanings one attributes to competence itself. In other words, competence is constituted in action.

Sandberg (2000) and Gherardi (2009) converge on the element that characterizes the interpretative paradigm – the interpretation of meanings and attribution of meaning. They are aligned when they say that being competent is conditioned to a certain time and space. Building competence encompasses multiple factors and represents a complex process that demands the ability to collectively build new knowledge, skills, and attitudes at work (Nonaka and Takeuchi, 1997). In this sense, this study discusses possible ways of involving the workforce in problem-solving.

Methodological procedures

Data collection occurred from May 2020 to May 2021 using semi-structured interviews, documentary analysis, and participant observation.

The research interviewed seven entertainment production professionals who worked in the company analyzed: two executive producers working with dramaturgy, a costume designer, a material logistics coordinator, a scenography production coordinator, a senior solutions architect, and a governance coordinator. The company is an entertainment content production center and counts on nine departments – each with a specific governance body – that answer to the general director of entertainment production. The group of interviewees gathered professionals from four of these nine departments. One of the interviewees represents another department that does not answer to the same director and offers support to other areas of content production. All interviewees occupy leadership positions and worked on at least one production filmed between July and December 2020, having experienced the changes in their work routine imposed by the social distancing measures implemented due to the COVID-19 pandemic.

Table 1 shows details about the interviewees, observing their different backgrounds. The semi-structured interviews followed a previously prepared script, with questions designed to help obtain in-depth information about the theme. The interviewees were selected based on impressions collected during the stage of participant observation. The researchers selected professionals who demonstrated the potential to significantly contribute to respond to the study's objective. The interviews were conducted remotely from January 04 to February 01, 2021, through Microsoft Teams® and lasted between 19 and 40 minutes. They were recorded and transcribed for future analysis and consultation.

Table 1
Profile of interviewees

Subject	Background	Current position	Years	Main Activity	Interview time (minutes)
Interviewee 1	Production Engineering	Material Logistics Coordinator	3	Storage and movement of scenographic material	19
Interviewee 2	Marketing	Principal Costume Designer	15	Design and idealization of the costumes of the cast and background actors	40
Interviewee 3	Journalism	Executive Producer	20	Program production	27
Interviewee 4	Administration	Executive Producer	21	Program production	29
Interviewee 5	Civil Engineering	Scenography Production Coordinator	4	Production of scenery, costumes, and scenographic city	23
Interviewee 6	Architecture	Senior Solutions Architect	6	Architecture for corporate spaces solution	26
Interviewee 7	Production Engineering	Governance Coordinator	6	Entertainment planning and control	21

Source: Elaborated by the authors.

The researchers focused on the primary research objective, and the interviewees were free to talk. They were not interrupted or influenced by judgments, signs of validation, or debates questioning their knowledge of the topics approached. The response time of the questions asked was not controlled, leaving the interviewee free to conclude when they deemed necessary. Additional questions were used whenever the narratives required further clarification.

The documentary analysis examined material produced by the company from March to December 2020. The documents were prepared to guide the operations when resuming the work that had been suspended due to COVID-19. The company's leadership requested adaptations in the content production routine to meet the safety protocols required by the World Health Organization. Multidisciplinary study groups were created to discuss the evolution of the work models during April 2020, envisioning new ways to keep providing services and building the general protocol for resuming activities. All material produced by the groups went through a hierarchical sequence of approvals and, after validation, was disseminated to all levels of the organization through meetings and emails. The files were made available in an online document repository. The content includes the main differences in the modus operandi of filming before and after the pandemic, such as the number of people allocated to a production team, restrictions on physical contact between employees, use of equipment protection, access control to the filming set, props, and cleaning and sanitizing of sets, costumes, and props.

Altogether, thirteen documents were analyzed, totaling more than 460 pages of content shown in Table 2. All material is related to the content production routine during the COVID-19 pandemic, and its use is restricted to employees.

Table 2
Analyzed documents

#	Name of the file	Pages	Format	Main content
1	Result of round table discussions - dramaturgy	315	Microsoft PowerPoint	Instructions on working from home, working hours, and new production models
2	Protocol_Soap opera	41	Microsoft PowerPoint	Map of filming perimeter, premises for art production, scenography, costumes, scene vehicles, and characterization
3	Action_Round Table Production	11	Microsoft PowerPoint	Distribution of the work of the study groups
4	Arts-A4 R02	28	Adobe Acrobat Reader	Signaling restrictions in the filming environment
5	Consolidated Signaling	1	Microsoft Excel	Need for signage in the filming environments
6	Filming teams	5	Microsoft PowerPoint	Number of employees in the production per position
7	Flow of Scene Vehicles	7	Microsoft PowerPoint	Review of the scene vehicle rental process to comply with the protocol
8	Costume cleaning	20	Microsoft PowerPoint	Review of the process of making the filming costumes available to comply with the protocol
9	Team Badge Template	2	Microsoft PowerPoint	Identification badge those allowed to enter the filming perimeter
10	Product Planning	4	Microsoft PowerPoint	Product protocol approval flow
11	COVID Protocol_Cost Allocation	7	Adobe Acrobat Reader	Guidelines for allocating extra costs for protocol-related productions
12	Protocol for Resumption of Activities	26	Adobe Acrobat Reader	General guidelines for resuming content production activities
13	Revised Screening Video	1	MP4 Video	Guide for employees entering sanitized environments

Source: Elaborated by the authors.

Participant observation is one of the techniques widely used by researchers who adopt a qualitative approach. It consists of inserting the researcher into the observed group where they interact for long periods with the subjects, seeking to share their daily lives and feel what it means to be in that situation (Queiroz et al., 2007). The technique was carried out in parallel with the other data collection processes in this research. One of the researchers is an employee of the company studied. She contributed to producing documents and included additional routines to the planning of content production to cope with the social distance measures required during the COVID-19 pandemic. This researcher has worked for the company for four years as an Execution Producer in the Entertainment Production Execution Department, responsible for producing scenography, art, and costumes for the programs.

During the observation period, she implemented the protocol for cleaning scenographic pieces, art objects, scene food, scene marking, clothes and costumes, and delimited the criticality perimeters for more than 30 productions. In addition, she participated as a guest in the study group focused on revising the Production Support Services routine, which reformulated organizational routines related to safety, transport, food, adequacy of workspaces, and team access to the filming set.

During participant observation, the researcher could take notes, participate in formal and informal conversations on the subject, and learn the employees' feelings regarding the proposed changes in routine. According to Fernandes and Moreira (2013), participant observation makes it possible to understand the relationships between individuals and between them and the institutions, as well as the practices, perspectives, and opinions of the research subjects, which would not be possible to apprehend through other techniques.

Analysis and discussion of results

The subsequent data analysis followed Creswell (2010), who points out that qualitative data analysis involves different assessments that lead researchers to a variety of meanings. The data on the corpus of this study were analyzed as described in the steps below:

1) General reading of the collected material (interviews, documents, and participant observation);
2) Codification to formulate the categories using the theoretical framework and indications collected during the reading;
3) Separation of the material into comparable categories with the same semantic content;
4) Inference and interpretation, supported by the theoretical framework.

The data were organized into spreadsheets for codification (the same procedure carried out in the documentary analysis). Then, the material was separated based on the convergence of the semantic content, and the categories were constituted by synthesizing the meanings attributed according to the interviews, documents, and the researcher's observation. The categories are 1) emergence of guiding and facilitating artifacts; 2) imposition of new competence; and 3) emergence of new production models.

The research was decomposed into excerpts from the interviewees' reports, documents, or units of analysis, using the investigated question as a reference. Then, they were classified according to the codes (Table 3).

Table 3
Elaboration of categories

	Data codification		
Interviews	Control of access to the work environment, sanitizing machine, packaging of materials, construction works to facilitate social distancing, work instructions for sanitizing, circuit for sanitizing people and materials	Remote team management, new production processes, uncertainty about the efficiency of methods, remote dissemination of information, new departments had to engage in the production process	New metrics (weekly deliveries) applied to the productions, more planning, remote filming
Documents	Perimeters, personal protective equipment, online communication tools, new layouts in the work environment	Training with an infectious disease specialist to ensure understanding before returning to face-to-face activity, adequacy of the protocol by product	Use of simpler equipment when filming and reduced staff on the filming set

Participant observation	Individual hygiene, mandatory social distancing, new online communication tools	Outline of the perimeter according to the filming set, interface between support areas with greater relevance for the products, remote team management	Studies about the resumption of products, considering the trade-off between longer filming periods and lower cost, closed works
Data categorization	Emergence of guiding and facilitating artifacts	Imposition of new competence	Emergence of new production models

Source: Elaborated by the authors

As mentioned above, the characteristics that justify data clustering in the three categories created were based on the authors' interpretation. At this stage, we extracted meaning from the data collected based on interpretation, reflection, and intuition.

The first category, *emergence of guiding and facilitating artifacts*, comprises the instruments used physically and remotely to protect employees' health, such as the protocol for resuming activities, new remote communication tools, personal protective equipment, access perimeters, personal hygiene, machines for cleaning art and costume materials, individual packaging of filming materials, cleaning of work environments, acrylic dividers in work and meal tables, among others. These resources played a central role in employees' safety when performing their routines, whether guiding on the new processes adopted to mitigate the risk of contagion or enabling remote work and communication.

The category *imposition of new competence* emerged as a consequent category of the previous one. Once new procedures are created, new skills are required from workers. In the data analysis, the remote management of teams appeared as a relevant theme in this matter. Other topics were time management when working from home, the need to film observing social distancing and the use of protective equipment, the production of art and remote costumes, communication with several departments that were not previously involved in the production process, and the constant need to adapt the process as new information about the disease was disseminated.

The third category, *emergence of new production models*, gathers the entertainment content production solutions that have emerged as alternatives to interrupting activities. It contains the experiences reported with remote filming, reduced productivity to reduce the scenographic set team, the exhibition of closed works, team rotation, and other new measures. The categories are detailed below.

Emergence of guiding and facilitating artifacts

Physical and technological artifacts proved essential to ensure the continuity of organizational routines during the pandemic, with social distancing as the main form of containment. Artifacts played the central role proposed by D'Adderio (2011) and boosted the development of new skills, as will be explained below. This category is characterized by the concrete manifestation of the analysis instrument. Routines encoded in artifacts are perceived as more stable and visible, acting as reference points through which performance variations can be detected. However, as much as artifacts are a guide to action, how individuals interpret and use them gives rise to several possibilities (D'Adderio, 2008).

The artifacts present in the analysis of the collected material were classified into two groups: guiding and facilitating. Guiding artifacts instructed employees in the new work routines, while facilitating artifacts made work feasible, respecting the health and safety measures imposed by COVID-19.

In terms of guiding artifacts, it is possible to highlight in the reports and documents the fundamental role of the document "*Protocolo de Retomada das Atividades*" (protocol for resumption of activities). A standard operating procedure (SOP), prepared by the company director and health department specialists, provided general rules to produce dramaturgy variety shows. The SOP addresses, albeit superficially, the new processes that came into force due to the pandemic, as reported by Interviewee 3,

Executive Producer of dramaturgy: "[...] the process that we built, which was a process that, as I said, was organic, each one did it in a different way [...] it became a manual, right? It became a fundamental protocol for people to survive a pandemic".

The document addresses the conditions for testing the team for COVID-19 in face-to-face operations, discusses the company's obligations to provide PPE, presents the responsibilities of employees in relation to personal care, provides instructions for the production planning of content, alerts about the necessary restrictions on the filming set - where the cast does not use any type of personal protective equipment, reveals the need to implement new processes for cleaning characterization material, costumes, art and scenography and finally, exposes the perimeters of access to the set.

The implementation of the new routines presented in the document demanded the need for planning, as highlighted by Interviewee 5, Scenography Production Coordinator:

> We started a very strong protocol movement of understanding what we needed to resume, right? I think there were several rounds, many conversations, many meetings to understand what we actually needed to return safely, even though we knew that we would not return with the volume of production that we had, right? It would be a reduced volume, it would be in a safer way, with a model of productivity well below what we are used.

Signaling in production environments with guidelines on preventing contamination was also a requirement for the return of activities to make the performative aspect of routines as close as possible to the ostensive aspect represented by the protocol. All workstations, support areas, studios, and common areas have been signposted to encourage employees to adopt protective measures against COVID-19.

In terms of enabling artifacts, the data analysis showed that technological artifacts were the main mediators of the work (Mansell et al., 2007), and, especially due to social distancing, they became essential for remote work. Employees who use laptop computers were instructed by managers to take the equipment to their homes on the last day of face-to-face work in March 2020 and to maintain, using technological tools available and approved by the company, the routines carried out in person. Technological artifacts are technology applications structured to carry out business processes (Leonardi, 2011). They can be applied to the interaction between people (Leonardi, 2007), which was confirmed by the report of Interviewee 2, Principal Costume Designer, who stated:

> This technological support that we can have, it is not harmful, but it is important, it has its place, it does not replace anything, it does not replace experience, but it can provide a good... let's say, a good way for you to launch a search. And that also made people stop being afraid to communicate, really, through these virtual means of meeting, to organize themselves through task organizers, because people had difficulty.

In addition to the technological artifacts, PPE made on-site filming and the infrastructure adaptations carried out in the workstations, support areas, filming studios, and common areas possible, as highlighted by Interviewee 6, Senior Solutions Architect:

> We had to create temporary spaces to meet this need for individual dressing rooms, individual meal spaces, two-meter distance, and eating areas within the perimeters so that people don't have to go out, put on their overalls again, and go through the cleaning circuit again.

The overalls the interviewee refers to became mandatory PPE for face-to-face work during the pandemic. PPE is any means or device intended to be used by a person against possible risks threatening their health or safety during the exercise of a certain activity (Fiocruz, 2021). Masks and

shoe protectors made up the set of PPE at the company that, according to specialists in the medical field, reduced the risk of contagion.

Therefore, to access production environments, which comply with the strictest safety standards, employees were guided through a personal hygiene circuit that included checking body temperature, wearing a mask, overalls, and shoe protectors, storing all belongings in locker-type cabinets, sanitizing hands, and presenting credentials to access the filming perimeters.

The perimeters limited employee access to filming spaces, and as described in the protocol for resumption of activities, the risk severity was defined according to the proximity to professionals directly linked to the production activity: "the closer to the filming set, the more restricted the operation and application of this protocol will be. Therefore, employees must restrict themselves to their area of activity and not circulate in other areas."

It is important to note that, before the pandemic, all employees could circulate in the environments, including at the moments of filming, only respecting the silence required on a film set. Producers, set designers, costume designers, art producers, and other professionals often watched the filming sessions after their work was delivered. Access restrictions represented a significant change in the entertainment content production model, as they required, in addition to remote planning, remote delivery or with a reduced face-to-face team, and new competence were imposed, as reported in the next section.

Imposition of new competence

The resumption of entertainment production operations required the adoption of a protocol with rules to preserve the health of the people involved in this activity. Leaders and teams were required to develop extra skills to adapt to social distancing measures and the challenges of a scenario of uncertainties in daily work.

According to Sandberg (2000), people become competent to cope with a given situation, and the attributes required to perform a task are not context-free. On the contrary, they are situational and dependent on the environment. That said, the characteristics peculiar to the performance of routines during the pandemic, evidenced in interviews and documents, were gathered in the "imposition of new competence" category.

The document "2020_ResultadoMesasRedondas_Dramaturgia" (result of round table discussions – dramaturgy) emphasizes the change in five specific processes of the company's production routine, formerly performed in person: meetings; planning and budget; creation and development; product workshop and casting. The document establishes that these routines (planning, budgeting, creation of artistic concepts, casting, product presentation, and meetings to understand the format of a program) must be carried out remotely.

The individuals' understanding of the situation was crucial to institutionalizing the proposed practices and ensuring the work environment's health and safety. As reported in the interviews, one of the main challenges for leadership was to transfer the relevance of process changes to the teams that would perform the new procedures:

> We had focal points in each area who had already participated in writing this planning, which had already helped in the communication of the pairs they were working with [...] we offered virtual training [...] one thing is for you to read the instruction, training, talking, and the other is being there operationalizing" (Interviewee 1, Material Logistics Coordinator).

Remotely managing teams that work in person became necessary to reduce the number of people circulating daily throughout the company. Technological artifacts enabled the performance of this

routine, as described by Interviewee 3, Executive Producer:

> Call, talk, FaceTime, look, always trying to understand, having thousands of meetings with the team all the time through Teams, passing on information as much as possible, surrounding myself with people, and knowing that people were there understanding what I was saying.

According to Le Boterf (1995), competence is knowing how to act responsibly in a way recognized by others, which implies knowing how to mobilize, integrate, and transfer knowledge, resources, and skills, in a specific professional context. Both for leaders, in their role of instructing as the artifacts specify, which translates the ostensive aspect of the routines, and for the teams who carry out the activities in loco (the performative aspect), the pandemic led to the development of competence, inserting new variables in already established processes, as pointed out by Interviewee 1, Material Logistics Coordinator:

> [...] there were a lot of variables, which ran over our service flow. So, it was a period of a lot of planning [...] with the teams at home, including the supervision team. Even so, it was a phase of immersion in the process of redesigning [...]

The variables the interviewee refers to are the cleaning steps that the logistics department had to include in its routine of collecting and delivering scenographic materials to the studios.

By determination of the protocol for resumption of activities mentioned in the previous section, all objects that make up the filming set should be sanitized with products effective to prevent COVID-19 and approved by the company's health and safety department, in addition to not damaging the equipment. The process adopted is described in the document "costume cleaning" and involves quarantining clothes purchased or manufactured in a clean room with prohibited entrance, washing and packaging with an accredited laundry service, sanitizing with a product specifically developed to combat the virus and approved by the health and safety department.

Additionally, departments of the company that were not previously included in the production process were asked to participate in the routine, as emphasized by Interviewee 4, Executive Producer:

> One difficulty of this operation was human capital because we had several parts of the company that also needed to enter more intensively into the operation, The Production Execution itself, which began to be part of an implementation, for example, of operation, with the protocols.

The infrastructure department, not mentioned by the interviewee but active from the researcher's perspective, received specific training to propose solutions for corporate spaces that were appropriate to the company's protocol and kept people at a safe distance from each other, as highlighted by Interviewee 6, Senior Solutions Architect: "The entire solutions team, the architects who design, did some training with the infectologist and HR, to understand the new guidelines so that they could do the layouts with safe distancing…"

The inclusion of new stages and new agents in the production routine, the insecurity regarding the spread of the disease, and the scientific discoveries throughout 2020 fostered the demand for greater planning and revision of practices associated with content production. This condition significantly increased the number of meetings and the workload: "you leave a meeting, enter another, you don't even have time to drink water [...] we would work a lot more, a lot more and without any time off" (Interviewee 6, Senior Solutions Architect).

The increase in productivity was another competence imposed in the analyzed period because, in addition to enabling the continuity of organizational routines, professionals had to reach new levels of delivery. The incorporation of remote work for stages preceding the activity of shooting a scene and

the mandatory distance during the face-to-face stage motivated the development of new competence. To ensure compliance with such security measures, it was essential to develop new content production formats requiring fewer people on set, minimal contact between teams, and prior script release, as explained in the next section.

Emergence of new production models

The pandemic imposed, considering the different nature of restrictive guidelines, the need to rethink the company's production processes to preserve people's health. Social distancing limited access to the filming set, while reducing the face-to-face team motivated greater dedication to the planning phase. Also, the transmission of the disease through physical contact imposed the exclusive dedication of production teams, and the uncertainty caused by the increase in cases required constant revision of the implemented processes. In the context of the dynamics of organizational routines (Feldman et al., 2021), the recursion between the ostensive and performative aspects, surrounded by related artifacts (Feldman and Pentland, 2003), generates novelties in the actors' action patterns (Stańczyk-Hugiet, 2018), especially in response to the implications arising from environmental factors (Turner and Fern, 2012). For Stańczyk-Hugiet (2018), the interdependence between micro and macro factors can lead to coordinating existing knowledge to generate new repertoires about how to perform a task.

The novelties that emerged in the routines during the period analyzed in this study – the set of actions that sought to improve or add value to the company's existing processes and products – are grouped in this category.

The company's content production model is based on the allocation of teams according to the production sizing, which means that the greater the production, the greater the team involved. However, according to WHO guidelines (2020), to contain the advance of COVID-19, it is essential that people maintain a distance of at least one meter. The protocol for resumption of activities established more conservative rules and determined a mandatory distance of two meters between employees. In practice, this parameter translates into substantially reducing the number of people on a film set.

The document "filming teams" describes how many people could access the company and what functions would be essential to carry out the face-to-face activity, such as characterization assistant, sound capture technician, script supervisor, stage manager, and assistant director.

Editing and filming teams did not meet, and the fixed limit of 25 people on a set assembled in any of the company's 13 available studios was enforced. The change in the operation entailed the commitment to precise planning of the steps that make up the production and recording routine, as highlighted by Interviewee 4, Executive Producer:

> I think the point was, initially, starting reduced, optimized, giving us room to realize that we can reduce costs, reduce the number of people in several operations, solve problems that we used to solve before with many people, with fewer people, you can solve problems that we used to dedicate less time to... spent less time planning, and with more planning, we can be more assertive.

However, the instability caused by the pandemic created the need to revise the planning constantly:

> And then, suddenly, we find ourselves returning; It was stopped and now I'm returning with other metrics, because we didn't expect to reach the productivity of six episodes a week so soon. So, we keep replanning, replanning to try to understand the minimum viability per week and where the point is closest to maturity, right? (Interviewee 4, Executive Producer).

The identification of the relevance of the new configurations in organizational routines occurred from a simultaneous process of evaluating validity in a given context. In this direction, Grand and Bartl (2019) analyzed how executives enact the strategic planning routine and found that "assessment" and "experimentation" emerged as parallel routines for strategic work or the emergence of routines with an analytical-experimental focus as propellers of another routine.

Team planning and planning the shooting script are activities that underwent significant process changes. The teams worked exclusively on a filming set for two weeks, whether in a studio or a scenographic city, and they had to stay a week without any face-to-face activity to carry out Covid-19 tests. If any employee was diagnosed with the disease, the protocol was to remove the entire team, mobilizing an on-call team.

The release of the shooting script, previously carried out three days in advance of the filming process and covering an entire week of scenes, began with a ten-day interval and with a forecast of scenes for two weeks, allowing reduced teams to perform the routine with the same quality as the previous model and insert the material cleaning process into the production chain.

The new production models were, therefore, novelties that emerged through a continuous process of gradual improvement and evaluation, through which reproduction work can subtly or dramatically alter routine (Feldman and Orlikowski, 2011; Rerup and Feldman, 2011), including the adoption of existing ideas and tools that made sense in a new context. In their research, Mierlo, Loohuis, and Bondarouk (2019) analyzed the changes in corporate rules proposed by senior management – which had implications for the operationalization of the hiring routine. The authors observed that as a result of the actors' different points of view regarding the new rules – i.e., the ostensive aspect of routines (Feldman and Pentland, 2003) – several actions in the routines were enacted (Feldman, 2016), leading to the construction of new routine (Pentland and Reuter, 1994), generating novelties, including the creation of new internal and external connections (Mierlo, Loohuis, and Bondarouk, 2019).

The findings presented in this section point out how to explain the movements that impacted the company's production routine during the pandemic, adopting the theoretical lens of the dynamics of routines. The emergence of guiding and facilitating artifacts (limiting object) enabled the routine operation in the face of the restrictive context, signaling its centrality in organizational routines (D'Adderio, 2001; 2008; 2011; 2021) based on the company's intentional propositions involving, among others, signaling or communication artifacts.

The restrictive context also required the organization to rethink the sequencing of action patterns (Pentland, 2005) and the components of its operation, such as the number of actors involved, through a gradual process of experimentation and result evaluation (Pentland and Reuter, 1994; Rerup and Feldman, 2011).

As the sociomaterial space, in the form of physical and digital artifacts, influences the new mental constructions on how the routine is operated (Feldman and Pentland, 2003; D'Adderio, 2008; 2021) in the context presented in this study, the relationship between these two categories could only be presented by the imbrication between them.

The novelties in the routine in the form of changes in its operative components, i.e., the dynamics between the ostensive and performative aspects (Feldman and Pentland, 2003), impose on the actors the development of competence to cope with the new configurations reported in the study. Figure 1 schematically presents the above propositions.

Figure 1
The dynamic of the intervenient factors for the imposition of new competence
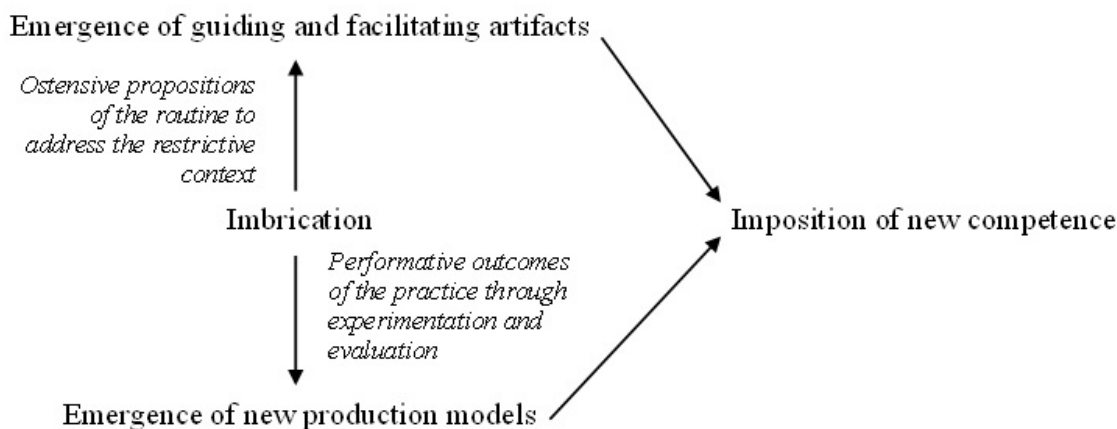
Source: Elaborated by the authors.

Final considerations

This study aimed to understand how the COVID-19 pandemic impacted the content production routine in an entertainment production center, utilizing the concepts of organizational routines and competencies. The research revealed three main categories: the emergence of guiding and facilitating artifacts, the imposition of new competencies, and the emergence of new production models.

The analysis demonstrated that artifacts played a central role in adapting organizational routines to new health and safety requirements. The imposition of new competencies was necessary to manage remote teams and adapt to new processes. Additionally, new production models emerged that optimized resources and ensured the continuity of operations.

The results suggest that the implementation of guiding artifacts, such as protocols and technological tools, can facilitate organizational adaptation in times of crisis. Companies can benefit from promoting specific training to develop competencies that meet new operational demands.

This study contributes to the theory of organizational routines by highlighting the importance of artifacts in maintaining and transforming routines in crisis contexts. The dynamic between the ostensive and performative aspects of routines was significantly influenced by the introduction of new artifacts, emphasizing the centrality of these elements in the study of routines.

This study focused on a single entertainment production center, which may limit the generalization of the results. Additionally, data collection was conducted during a specific period of the pandemic, which may not reflect all phases of the crisis.

Future research could explore the application of the findings in other organizational contexts, such as companies from different sectors. Longitudinal studies could provide a more comprehensive view of changes in organizational routines over time.

The findings presented in this research open space for many other questions and research paths. Further studies may use the same data to understand the paradox between innovation and rigidity in the context of adopting a security protocol in organizational routines. Additionally, future analyses could address the balance between stability and change in the execution of production routines.

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