Digitalization Models in Civil Protection HR Systems

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Abstract

The article presents the peculiarities of defining models and methods of digitalization in civil protection HR systems. The efficiency of human resource management in projects involving the development and implementation of information systems through the use of models and methods of digitalization in civil protection HR systems is considered. The main objectives of the information system for human resource management in civil protection are proposed. The author also considers the transformation of digitalization of HR management, which will lead to various trends in the field of human resources management in civil protection, develops a flowchart for improving employee performance and the integration of new technologies for the digitalization of HR processes.

Keywords

HR management, HR processes, information systems, digitalization, automation, human resources.

1. Introduction

The modern world is shaping up in a new environment where digital technologies are becoming increasingly important. They can significantly increase the level of labor efficiency and human well-being, and solve the challenges of public administration. Any changes affect the organization. One of the main drivers of technological change in the HR management of government agencies is digitalization, and the main goal of development is the production and use of digital logic circuits and its derivative technologies, including the computer, smartphone, and the Internet. Smart automation of HR management leads to a number of trends in the field of human resources management in civil protection. The main trend is the identification of new methods and models of HR management, the application of which requires the introduction of a human resources management information system. Systematization of HR processes will allow for more efficient management of labor productivity and human potential, as well as create a digital environment for staff. Government agencies today need to make decisions on adequate equipment and programs that allow them to respond quickly to changes in advanced technologies. Digital resources allow for effective management of process personnel for automation and will reduce the workload of routine mechanisms.

2. Analysis of recent research and publications

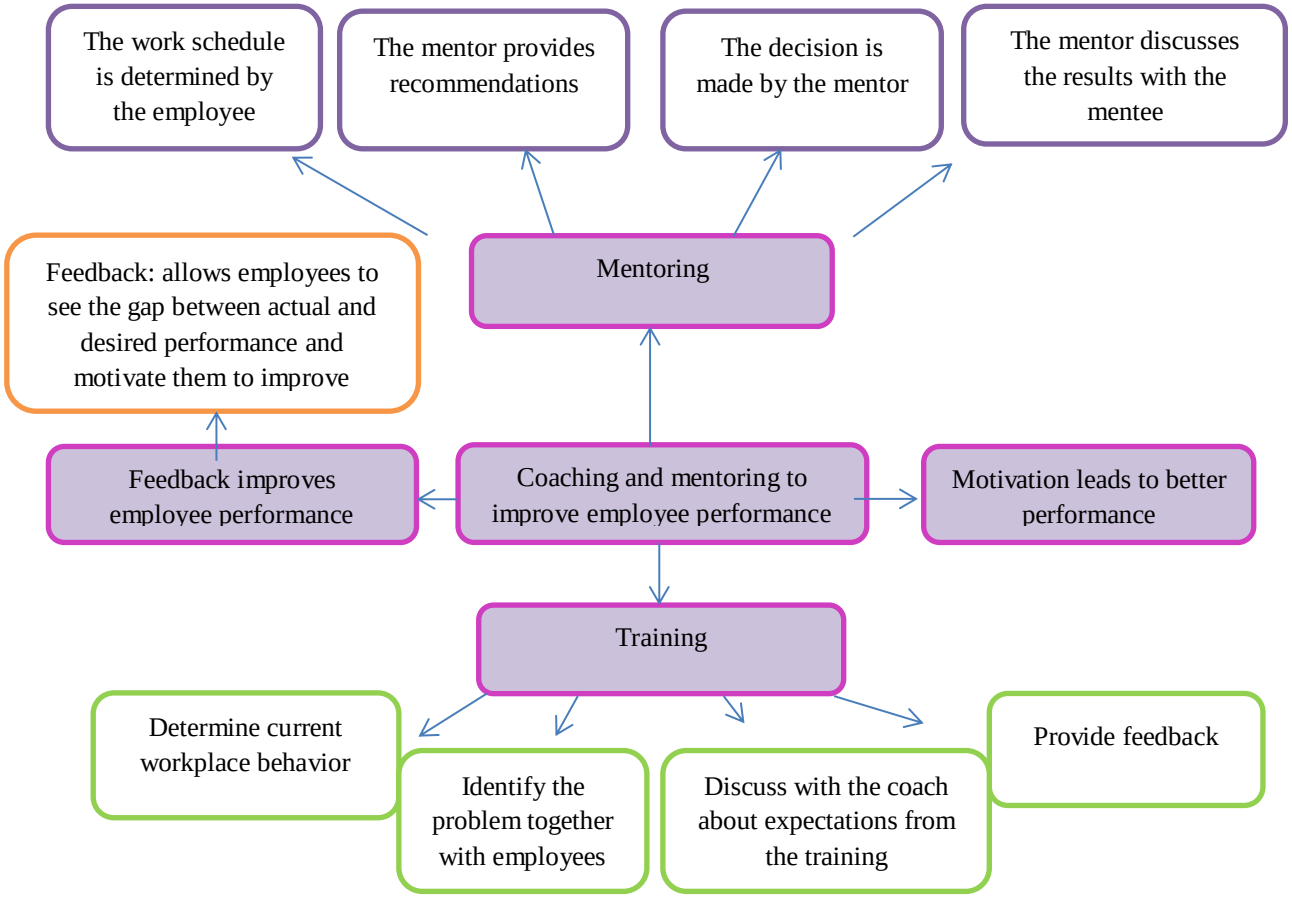
The analysis of recent research and publications has shown that the problem of automation and digitalization is being studied by many scientists, in particular, S. Bushuyev, A. Borysov, O. Zachko, V. Zhukovska, I. Sopilko, V. Kuibidy S. Bushuyev's research highlights the development of the creative potential of project managers, an interactive multi-level model of emotional contagion developed using the earned value methodology in the project management process, and an additional strategic model for managing organizational entropy. The works of O. Zachko describe the digitalization of personnel management processes in project-oriented organizations in the field of security, standards for the formation of knowledge of project teams in security-oriented systems, content management models for one-template infrastructure projects under the influence of project changes. V. Zhukovska explores the peculiarities of modern forms of labor relations, analyzes the directions of digitalization of human resource management processes, which will allow organizations to increase their efficiency and productivity in the future. I. Sopilko believes that the introduction of an information system in human resources management will allow to summarize large amounts of information, facilitate the work of human resources personnel, increase the efficiency of data processing, and ensure electronic exchange of information within the government agency.

V. Kuibida explores the basic definitions of the conceptual and categorical apparatus of the digital governance sphere, conducts an etymological and semantic analysis of the terms used in foreign and domestic scientific research on the issues of digitalization (digital transformations) of the activities of public authorities and local self-government bodies. To date, despite various research trends, the problem is the lack of automated personnel management programs for government agencies. Therefore, in the context of the country's digitalization, in order to effectively manage the personnel of public authorities, it is necessary to automate management processes in public authorities and improve operational processes on personnel issues, as well as to timely and effectively monitor the performance of public authorities on personnel management issues.

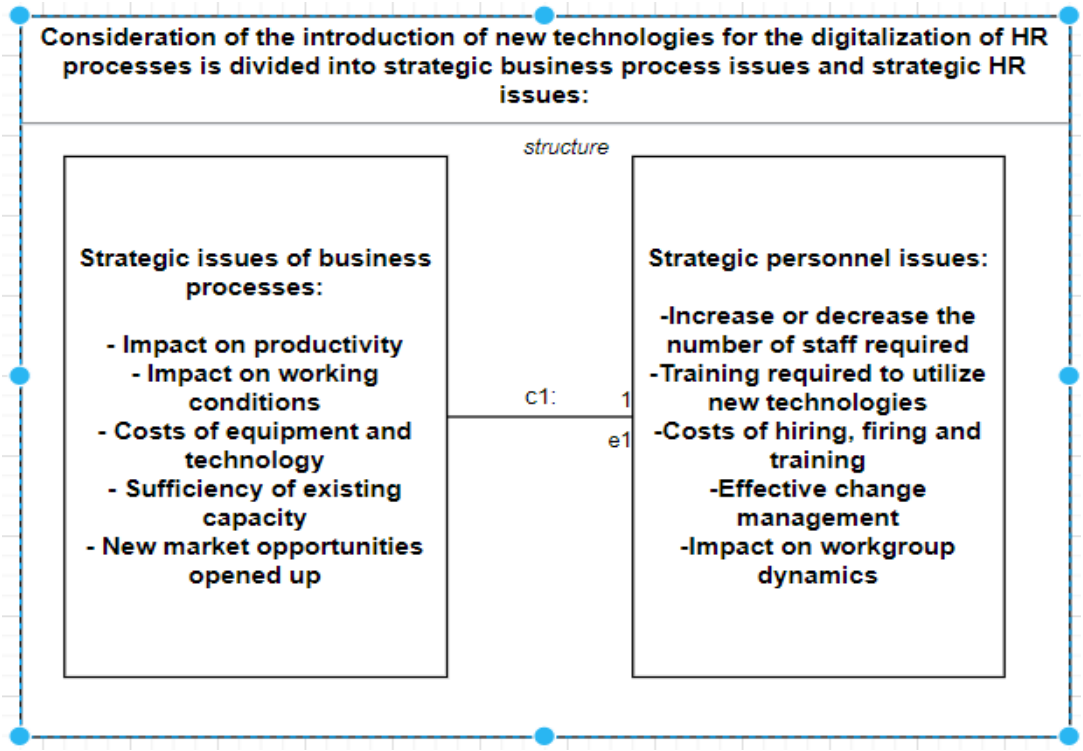
3. The bulk of research

One of the most significant trends affecting thedigitizationof HR processes andtalentin organizations is technology. Simply put,technology inan organizationis the process by which inputs from the organization's environment are transformed into outputs. Technology includes tools,machinery, equipment, work procedures, andemployeeknowledge and skills. Thedigitaltransformation of HR managementbringsanumberoftrends in the field ofprivatesectorHRmanagement. Figure 1illustratesthe main trends in HR management

Organizations often use cognitive assessments to determine a candidate's level of intellectual potential and critical thinking based on the candidate's career experience and skills. Large companies with a high number of applications use artificial intelligence for the candidate screening system and select candidates who are able to work in a mixed mode with technology and humans. This will solve the problem of redundancy of tasks so that HR managers can focus on more valuable activities that require human contact. Training and mentoring of employees, executive coaching, organizational development, workplace culture, and expanding the role of the human resources department in companies around the world. Digital resources make it possible to rethink and organize effective human resources management by automating and improving routine mechanisms, as well as reducing the workload and funding of important tasks of the organization. Figure 2 shows a flowchart of the impact of coaching and mentoring on employee performance.



All organizations, whether they are industrial or service, public or private, large or small, use some form of technology to produce something for a broad market or for a specific customer category. The important financial aspects of adopting digital technology for an organization's HRM must be weighed against a number of important strategic and HR issues, as shown in Figure 3 Integrating New Technologies to Digitalize HRM Processes.



The human resources management information system provides a database for human resources management information and acts as a business intelligence for senior management to make personnel decisions. Its implementation aims to increase the efficiency and effectiveness of HR work, satisfaction of needs and consistency of actions in the automation of HR processes of civil protection personnel management. In addition, the HRMIS can function as a tool to facilitate the process of human resources management in government agencies. To evaluate its effectiveness, it is important to analyze the application and measure the level of effectiveness in relation to the satisfaction of employees (users) in the public sector. Figure 4 illustrates the objectives of an information system for human resources management in civil protection:

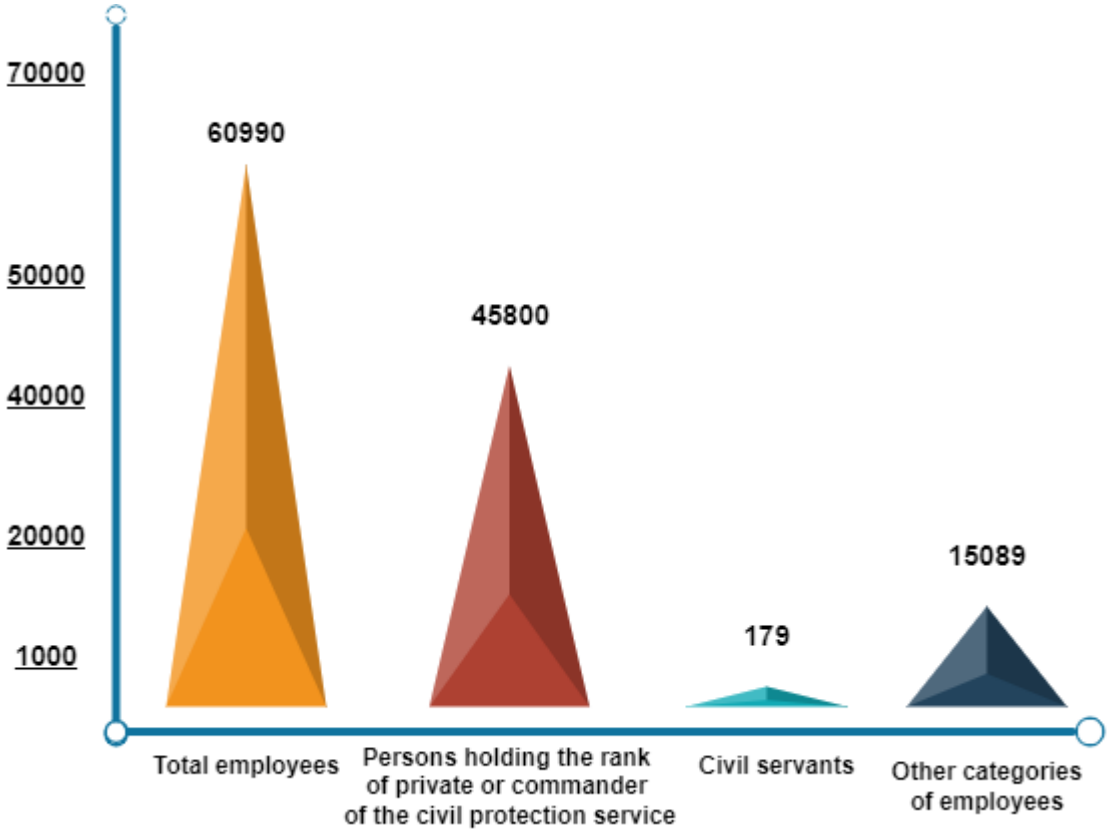
This information system will help HR specialists and professionals make faster, more accurate and efficient feedback and decisions. Using web-based technology, human resources functionality is simple, fast and up-to-date, with efficient management transaction data between employees and HR managers. Human resources should become more strategic, flexible, cost-effective, and user-friendly through the implementation of human resource management information systems. This suggests that the use of information technology has the potential to reduce administrative costs, increase production, provide quicker response, improve decision-making, and increase the effectiveness of employee-centered services. With the use of information systems, employees will be able to update information at any time by referring to it and printing documents that have been uploaded by HR managers. In addition, human resource management becomes easier and allows management to focus more on organizational goals and more important activities and strategic planning plans.

Effective use of improved and streamlined HR processes will certainly lead to improvements in almost all components of business operations. Improving and automating just one imperfect HR process can bring significant benefits.

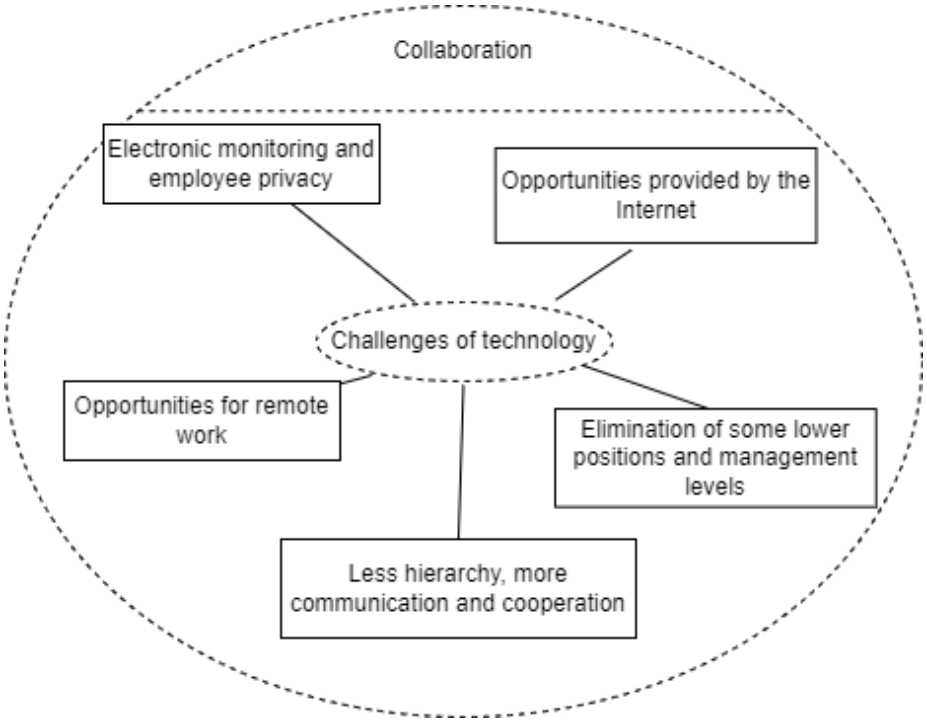
Figure 5 shows the steps to improve and optimize HR processes:

Focus on the process of improvement, align new processes with clear, realistic, justifiable, and achievable goals, and systematically communicate progress to stakeholders, leaders, and customers. These basic steps to improve and optimize HR processes will result in a more efficient, agile, and smarter organization. Just one dysfunctional HR process among hundreds of processes in an enterprise can create bottlenecks and impede the company's agility, which is where a well-thought-out step-by-step optimization plan can eliminate weak links and improve the flow of processes.

An important aspect of HR digitization is the ability to use the data obtained to support organizational changes, including the introduction of various IT systems that facilitate the work of other areas of government agencies. With the right tools, the HR department can become indispensable in every process of implementing new solutions. The use of information systems will allow employees to utilize powerful search capabilities. This means that employees can find files at the touch of a button, much faster than the time-consuming manual process of searching for a specific file in a hidden folder. Employees can use this extra time for other projects. Saving employees' time becomes especially valuable in connection with repetitive, high-volume tasks and work with large amounts of information, due to the large staff structure. Figure 6 shows the number of personnel in the civil protection service.

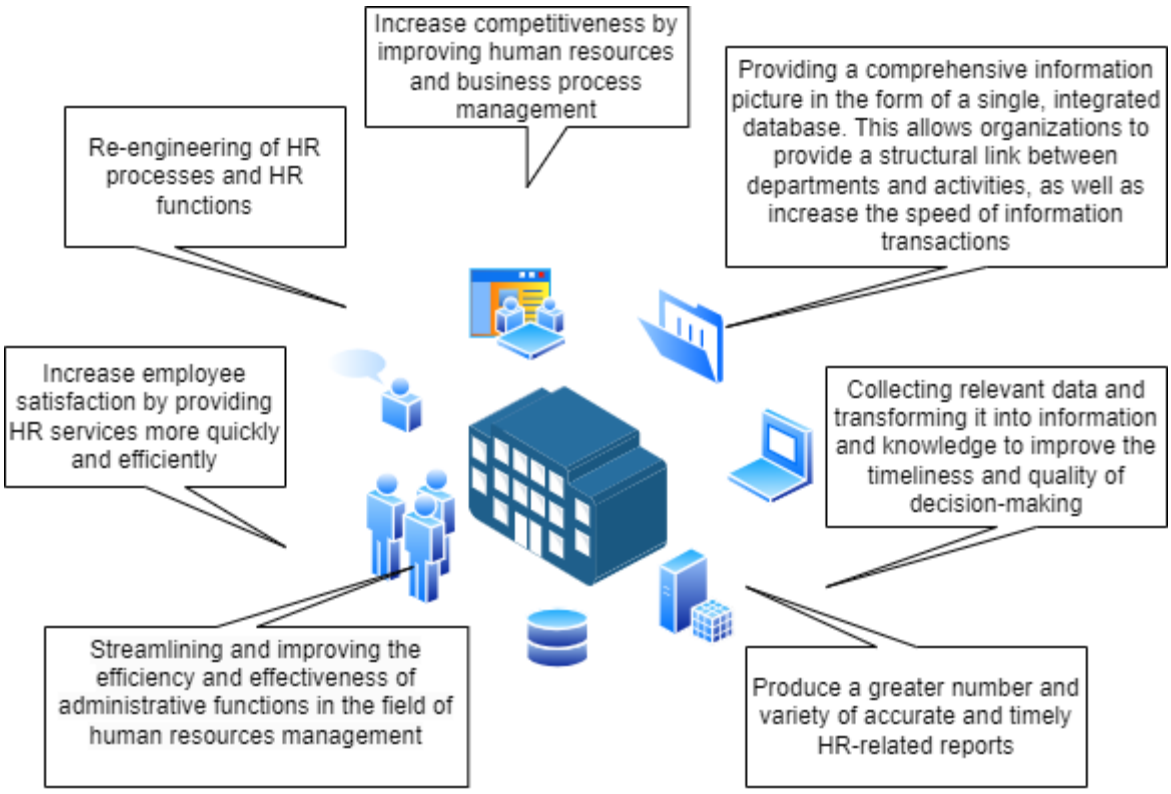


With the advent and use of new technologies, the professional skills and work habits required of employees have also changed. There is now a much greater need to maintain and improve the skills of existing professionals than ever before. Gone are the days of employees working with the same skills and equipment to do their jobs. In Figure 7, we look at five specific challenges that HR process technology poses to organizations for managing human resources



Data analysis and HR management define the features of a system used to accumulate, store, manage, analyze, retrieve, and disseminate information about human resources in a company. Automation consists of hardware and software, as well as personnel, documents, rules, strategies, processes, and data collection. It is important to note that a company that does not have an automated system has a paper-based HR system. The paper-based HR systems used by most organizations before the development of information technology were

still comparable to automating the organization's HR processes, but the processing of employee information was not as fast as in a computerized system. Figure 8 shows the benefits of optimizing HR processes



Today's competitive environment requires companies to combine the activities of each structural unit without losing sight of the customer. Effective digitalization of HR processes helps managers and employees providing technology for the generation of reliable, up-to-date and timely information. Based on the above, the digitalization of an organization's HR processes takes place in two directions: the creation of new HR models and the digitalization of existing HR processes.

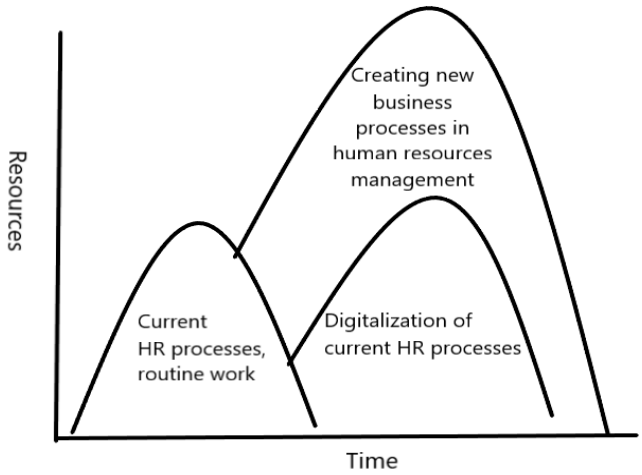


Figure 9 shows that creating a new HR model in human resource management requires more time and resources for its implementation, while optimization saves time and resources. The choice in favor of a particular transformation should be made based on the competitive environment in which the company operates: the level of current digital maturity, the specifics of the company's activities, and external environmental factors.

Figure 10 shows the potential for digitalization of HR processes

Digital transformation of HR means changing the way HR functions by leveraging data in all areas, including payroll, performance management, learning and development, benefits, rewards, motivation, and recruitment. The role of the HR team in digital transformation is to take ownership of its own transformation by leveraging automation and big data-driven digitalization. HR manages the digital transformation of the organization itself, working closely with the IT department to support the digital evolution ecosystem.

4 Conclusions

Based on the results of the conducted research and observations, it was determined that today's civil protection personnel management requires new ideas and approaches. To improve the personnel authorities, it is advisable to introduce automated systems that are a comprehensive technological solution to personnel management tasks, ranging from daily operational accounting of personnel data to optimization of personnel issues. The functions of information systems are not limited to personnel accounting, but include problematic

issues that exist today in the civil service personnel processes: decision-making to solve these problems, monitoring of large amounts of information, development, training and performance evaluation of personnel. The future of human resources will continue to be shaped by changing trends. Factors that strongly influence human resource management include accelerated digital transformation and the new workspace scenario. These new changes are coming slowly, but they are now becoming increasingly important. Contrary to the general perception, human resources is not shrinking as a professional career, but is actually growing and evolving rapidly. Technological innovations have fueled this fire, and HR is no longer just about job interviews and conflict resolution. It's about enhancing the overall experience between employees and the organization and creating a win-win equation for them.

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