CMS IN THE DIGITALIZATION OF FIXED ASSET MANAGEMENT

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ABSTRACT: The importance of digitalization in modern organizations cannot be overstated. As institutions strive to streamline their operations, enhance efficiency, and improve data accuracy, the digital transformation of asset management processes becomes essential. The use of Content Management Systems (CMS) in digitalizing information flow allows institutions to organize data efficiently, provide easy access to data records, and facilitate real-time updates. This can lead to better decision-making, reduced administrative overhead, and increased transparency within the organization. In the context of fixed asset management, a CMS like WordPress can be leveraged to create a comprehensive platform that centralizes information, simplifies asset tracking, and ensures secure data management. WordPress, known for its user-friendly interface and robust customization capabilities, has evolved from a blogging platform to a versatile tool for building complex digital solutions. Employing a CMS like WordPress for the digitalization of asset management processes, not only supports operational efficiency, but also empowers institutions to adapt to evolving technological demands. This strategy helps bridge the gap between traditional management practices and the modern digital landscape. This paper showcases a digitalization solution for managing fixed assets within an institution, utilizing WordPress as the CMS, while exploring both the benefits and limitations of this approach.

KEY WORDS: CMS, Wordpress, digitalization, management.

1. DIGITALIZATION AND TECHNOLOGIES

Digitalization plays a pivotal role in the growth and development of businesses by enhancing operational efficiency, fostering innovation, and enabling better decision-making [1]. By adopting digital processes, companies can streamline workflows, reduce errors, and respond more swiftly to market changes. The digitalization journey helps businesses stay competitive in an increasingly technology-driven world, opening pathways to new opportunities and improving customer engagement [1, 5].

The rapid pace of technological development has compelled businesses to modernize, leading to the adoption of digital solutions across all areas [2]. Digitalization has become a necessity, particularly in today's era where time is the most valuable asset. Digital technologies provide flexibility and adaptability to market shifts, supporting the optimization of information flow within processes. This is especially crucial now, as remote data access has become the nowadays reality [3, 4].

There are several methods of digitization, and the choice of the right one depends on the business domain and the processes that need to be modernized in this regard: creating digital copies of physical documents, storing and accessing them in digital format, automating forms and data processing, archiving

documents, workflow management, accessing, modifying, and distributing data, data conversion, centralized information management, automatic data exchange between various software systems, data analysis, and prediction [1,8].

For digitization, a wide range of tools and technologies are available, suitable for various purposes and needs [7]. Within digitization, there is a wide range of tools and technologies available, suitable for different purposes and needs. Google Workspace or Microsoft Dynamics 365 offer suites of tools for communication, collaboration, and productivity, while Trello, Asana, or Jira facilitate the planning, tracking, and management of projects in an organized and efficient manner. Google Analytics, Power BI, or Tableau allow for data collection and analysis, DocuWare provides a centralized system for document archiving and management, and CMS solutions such as WordPress, Drupal, Joomla!, or OctoberCMS are efficient options that enable inventory and asset management through custom extensions.

2. WORDPRESS DIGITAL PLATFORM

The platform is intended for the digitization of an institution's fixed assets, with the aim of increasing the efficiency of their management, enhancing data visibility, and facilitating the use of information.

2.1. Digital platform design

Figure 1 shows the flow diagram of the platform functionalities. From the main page of the web digitization platform, the user has access to all pages of the platform through a menu. The "Corpuri" option contains a complete list of all the buildings within the institution's premises.

By selecting any building from this list, the platform will redirect the user to a dedicated page for the selected building, where a detailed list of all rooms will be available. By accessing the list of rooms, the user can select any of them to view the existing fixed assets in that room. This information, "Echipamente Sali", is presented in tabular form, providing essential details about each piece of equipment. The tables include a photo of the equipment, its name, purchase value, updated value, and the manager's name.

Additionally, this page also offers a transfer form, "Formular Rezervare", that allows the user to request the temporary use of equipment, specifying user name, e-mail, the equipment details, reason for the transfer, period of use and other relevant information to facilitate the approval and registration process of the transfer.

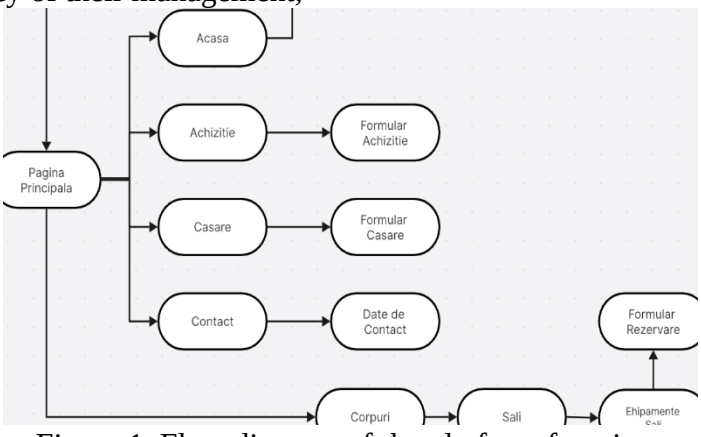

Figure 1. Flow diagram of the platform functions

The platform provides a procurement form, "Formular Achizitie", through which an employee can submit a request for the purchase of equipment necessary for work. The form includes mandatory fields such as the name of the equipment, technical specifications, justification for the purchase, allocated budget, and the requesting department, as well as optional fields such as details about preferred suppliers, desired delivery deadlines, or additional technical specifications that could influence the procurement decision. The form for the disposal of depreciated equipment, "Formular

Casare", is designed in a similar manner. The forms are submitted to and managed by the fixed assets administrator.
For using the platform, two types of user accounts are provided: a full-access account for the fixed assets administrator and a view-only account with the ability to submit forms for other employees.

2.2. Digital platform implementation

For the implementation of platform functionalities, dedicated plugins for design, source code for functionalities, and a database for storing information about the equipment were used.
The plugins are available for download from WordPress CMS, part of them are open source, each one of them offers structural or functional capabilities which allow implementing the functionalities of the digital platform [6].
The main plugin used in platform development is Elementor which offers an extensive range of over 40 free widgets, each designed to enhance and diversify the functionalities and appearance of the platform, such as Heading, Image, Text Editor, Video, Button, Testimonials, Icon, Image Gallery, Progress Bar, and many others.
Another WordPress plugin is MetForm, which functions as a form builder for contact forms, surveys, questionnaires, and custom forms, and has facilitated the creation of procurement, disposal, and transfer forms [6, 9].
The Phlox Core Elements plugin adds exclusive elements for the Elementor page builder, allowing for the structural optimization of the platform and the management of plugins from the admin panel [9-12].
The TablePress plugin is used for managing data tables in a simple and efficient manner, with features such as sorting, pagination, search, inserting images, links, and even mathematical formulas. It also allows the import and export of tables from or to Excel, CSV, HTML, JSON files, or URLs [6].
The code in Figure 2 allows error handling in the "Required Field" situations, for cases where mandatory fields in forms are not completed, for all corresponding mandatory checkboxes, as well as for the "Submit" button, which connects the sender's form to the email of the administration department.

Figure 2. Code sample for error and submit handling

	A	B	C	D	E	F	G	H
1	Instrument	Nume	Nr.Inventar	Data intrare	Valoare intrare	Valoare actualizata	Gestionar	Document de intrare
2	<img src="http://localhost/wordpress/wp-content/uploads/2024/04/736772_1.png" alt="" ...	Osciloscop	1	02.09.1998	1500 lei	1200 lei	Popescu Ion	Bon 12345678 Factura. 000000
3	<img src="http://localhost/wordpress/wp-content/uploads/2024/04/generator-de-semnal-...	Generator de Semnal	2	05.12.2005	850 lei	800 lei	Popescu Ion	Bon 12345678 Factura. 000000
4	<img src="http://localhost/wordpress/wp-content/uploads/2024/04/multimetru-digital.jpg"...	Multimetru	3	16.05.2021	200 lei	150 lei	Popescu Ion	Bon 12345678 Factura. 000000
5	<img src="http://localhost/wordpress/wp-content/uploads/2024/04/analizor-retea-electrica...	Analizor de rețea	4	24.09.2019	1200 lei	1000 lei	Popescu Ion	Bon 12345678 Factura. 000000
6	<img src="http://localhost/wordpress/wp-content/uploads/2024/04/400-230-600-...	Transformatoare de curent și tensiune	5	08.03.2008	600 lei	400 lei	Popescu Ion	Bon 12345678 Factura. 000000

Figure 3. Table structure for equipment description

The tables, as presented in figure 3, contain information about the equipment in management, such as: the equipment photo, name, unique inventory number, date of entry into management, purchase value, updated value through depreciation, and the name of the person responsible for the equipment.

2.4. Digitalization of fixed asset management

The main page of the platform for digitizing fixed asset management is shown in Figure 4. The user has access to a menu that allows navigation within the platform.

The "Acasa" option is the starting point of the platform and provides a detailed overview of how to use the platform and the various available options.

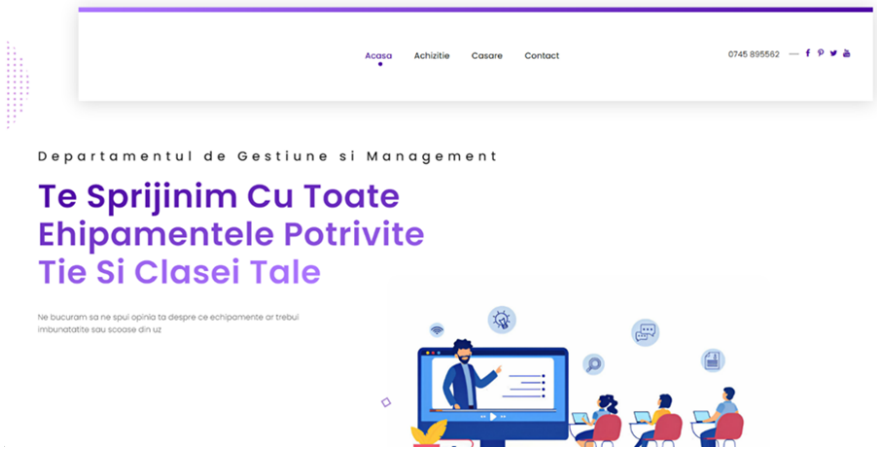

Figure 4. Main page of the platform

The "Achizitie" option allows users to access the page dedicated to purchasing new equipment necessary for carrying out service activities, as it is noticed in figure 5. The fields marked with "*" are mandatory. The "Casare" option allows the user to request the disposal of equipment that is no longer functional or has become technologically outdated.

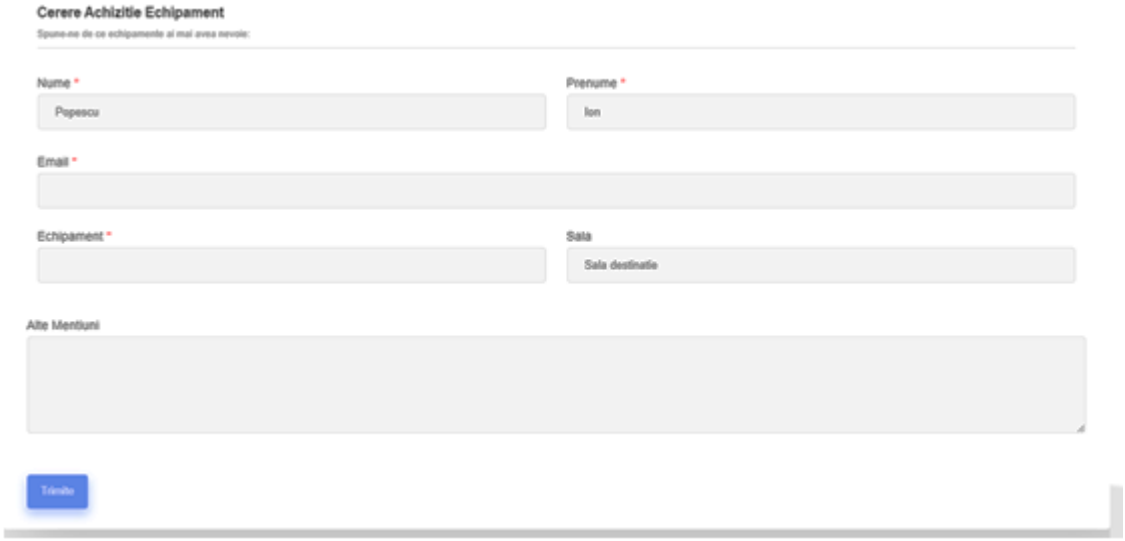

Figure 5. New equipment purchasing form

The "Contact" option, figure 6, is extremely useful for situations where employees have various questions or encounter issues related to using the platform. This page provides multiple ways to request information, such as phone numbers, email addresses, and an integrated contact form.

The " Achiziții Recente" section in Figure 7 aims to keep users informed about the latest acquisitions and innovations within the institution, designed to improve workplace efficiency, encourage transparency, and provide access to information. The section is divided into three boxes, each offering a relevant image of the item, the name of the

equipment, and the room where it was added, along with a brief paragraph detailing the features of each piece of equipment.

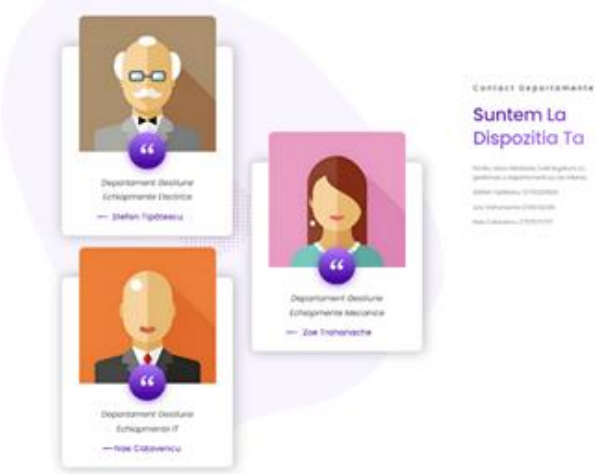

Figure 6. Contact page of the platform

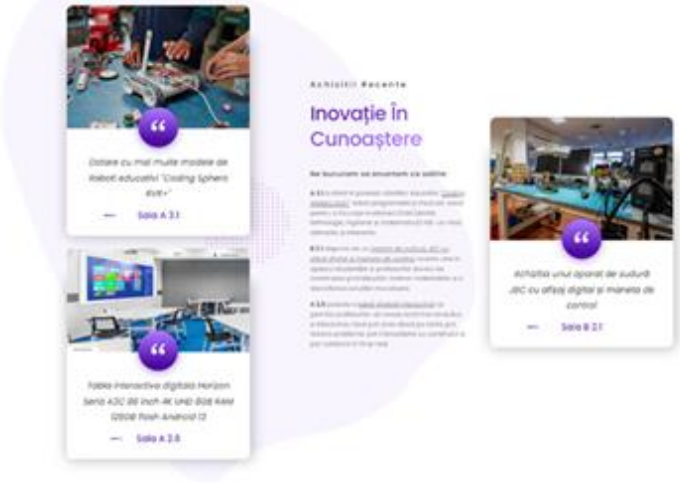

Figure 7. Latest acquisitions

The " Corpuri " section provides employees with the ability to access information about the equipment in the institution's buildings, each building being specialized with equipment specific to a department. After selecting a building, the user is directed to the existing rooms. By accessing a room, the user can view the available equipment and information about it, as shown in Figure 8.

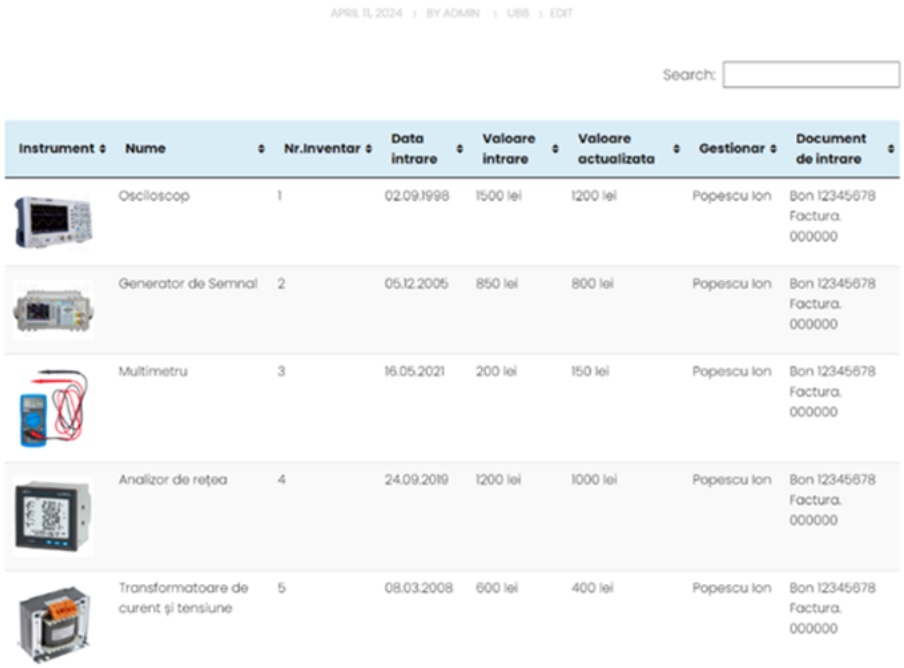

Figure 8. The available equipment from building A, room A.1

3. CONCLUSION

This platform has been designed to bring transparency and efficiency to the management of various aspects, including requests for the purchase or disposal of specific equipment based on user requirements, as well as the ability to reserve them for well-defined periods of time, providing a more efficient flow of productivity within the institution.

The platform can serve as a replicable model for other institutions or organizations looking to modernize and streamline their asset management processes.

Using CMS as WordPress in digitalization brings pros and cons.

WordPress has an intuitive interface that allows users to easily create and manage websites, offers flexibility through available plugins, can manage complex websites with optimization plugins and dedicated servers, is optimized for search engines, and is free to use. However, WordPress also has some disadvantages, such as a lower security level, being a frequent target of cyberattacks, and the constant updates of plugins which, especially in the case of complex platforms, require advanced web programming knowledge.

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