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ABSTRACT

The automation of virtual classroom care and its impact on the teaching-learning process has become a necessity for higher education institutions that work under this modality, and where currently this type of teaching and methodology has been increasing in part due to the global pandemic that occurred in 2020.

However, there is no list of automation strategies and platforms that allows reviewing their characteristics and impacts that this type of teaching and methodology is generating.

Therefore, the purpose of this degree project is to carry out a process of technological surveillance on these strategies and platforms for the automation of care in the virtual classroom and to review their impact on the teaching-learning process.

To fulfill this purpose, the different methodologies and tools that support technological surveillance processes will be reviewed, and various literature will be examined to define the technological surveillance design to be implemented to identify these strategies and platform and to analyze their impact.

Additionally, the results of this project will have a practical impact on the National Open and Distance University (UNAD), since it is expected to prioritize the results of technological surveillance based on the characteristics of the platform and courses of this institution.

METHODS

- Method 1: A bibliographic review process was carried out to obtain information on the virtual campus attention automation platforms and their impact on the teaching-learning process in higher education institutions, through a process of technological surveillance that is the methodology and a systematic process that allows obtaining and capturing information, all this through a search equation in specialized databases and implemented digital analysis tools such as Connected Papers and Biblioshiny.
- Method 2: TRIZ XXI Methodology, proposed by Colciencias in 2006 and consisting of six stages that are the identification of the subject and object of surveillance, the identification and validation of sources, keywords, subsystems and selection criteria, the search, collection and organization of information, the analysis of the information, the validation of the results, and the technological surveillance report.
- Method 3: Methodology Garces, C. & Duque O. (2007), this methodology provides the steps to follow in terms of the elements to take into account in the analysis of an article.

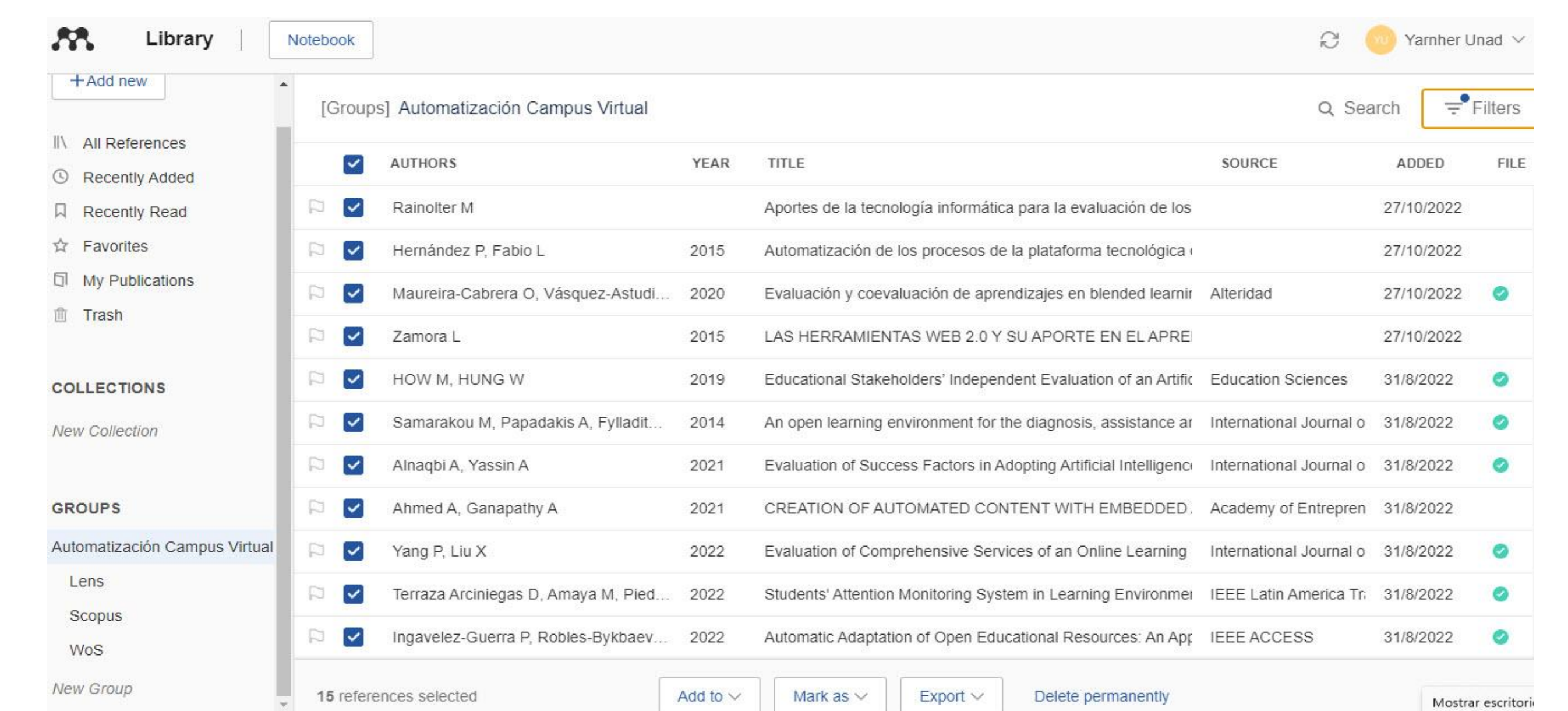
Artículo	Información relevante	Definición en Inteligencia Artificial/E-learning	Herramientas/Plataformas planteadas o utilizadas	Descripción y características de plataformas/herramientas	Modelo	Conclusiones
NOMBRE del artículo	Se identifica el problema por estudiar previamente e no analizado, la importancia del tema, los objetivos, el enfoque y las contribuciones	Se adjunta la definición que presenta el autor de inteligencia artificial o E-Learning	Se identifican herramientas/plataformas que propone el autor	Se presenta la definición que da el autor de cada una de las plataformas/herramientas y sus características detalladas.	Si el artículo presenta un modelo o gráfico	Se presentan las conclusiones más relevantes a las que llegue el autor o autores
Identificación de características del artículo			Literatura contemplada		Análisis de resultados	

- Garces Cano Methodology

RESULTS

Base de datos	Resultados
Scopus	15
Web of Science	13
Lens	4
Total	32

- Databases and article search results



- Result 15 articles in the Mendeley reference manager

OBJECTIVES

- Objective 1: Design the technological surveillance methodology to be implemented to capture information on strategies and platforms for the automation of attention in the virtual classroom and its impact on the teaching-learning process.
- Objective 2: Analyze the impact on the teaching-learning process of the automation of attention in the virtual classroom through the strategies and platforms identified through technological surveillance.
- Objective 3: Classify the strategies and platforms for the automation of attention in the virtual classroom based on the characteristics of the platform and courses of the UNAD.

RESULTS

- Result 1: The collection of information in the specialized databases Scopus, Web of Science and the digital search tool LENS; It resulted in the finding of 32 articles pertinent to the topic and search equation, for later, according to the analysis of each article in terms of its relevance, finally obtaining 15 articles for the research project, which were migrated to the Mendeley reference manager.
- Result 2: According to the large number of electronic learning management systems (LMS) and the availability of these, there is a need for a systematic way or a tool to evaluate the quality, efficiency and performance of LMS and make a decision that satisfies to the max.
- Result 3: Due to the impact in the teaching-learning process of virtual classroom attention automation in recent years, e-learning systems have become very popular in all fields of higher education.

CONCLUSIONS

- Conclusion 1: Technological surveillance allows carrying out various information gathering processes, among these is the literature review, which allows tracking different types of sources and content according to a specific theme.
- Conclusion 2: Artificial intelligence plays an important role in service and automation platforms on virtual campus, since through it authentication factors, chatbot, content, web conferences, among other technological tools, are implemented.
- Conclusion 3: Different platforms and technological support that currently exist to carry out the teaching and learning processes virtually in higher education institutions were identified.

