



EAD5614

Knowledge Management in Educational Administration



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The school designs a **knowledge management system** to provide an unobstructed channel for the mutual transformation of explicit and tacit knowledge in the school to realize the spiral of knowledge. The goal of establishing a school knowledge management system is to integrate the school, students, teachers, and teaching resources into dynamic knowledge. The system, through the acquisition, storage, analysis, sorting, transformation, distribution and utilization of knowledge, cultivates the knowledge innovation ability of teachers and students, and realizes the optimization of teaching effects.

In schools, there are mainly the following aspects of knowledge to be managed:

- 1) Student information.
- 2) Teaching information.
- 3) Educational resources.
- 4) Knowledge in the head.
- 5) Knowledge in communication.
- 6) Knowledge behavior.
- 7) Knowledge assets.

Through the research and analysis of school knowledge transformation, our school's knowledge management model has the following functions:

- Knowledge acquisition function
- Knowledge storage and retrieval function
- Knowledge analysis function
- Tacit knowledge sharing and transformation function
- New knowledge generation and feedback function
- User behavior analysis and tracking function

- The workflow of the knowledge management system is shown in Figure
- **The first step** is to code the knowledge in the minds of teachers and students and the knowledge generated during communication by obtaining information about student information, teaching information, and educational resources in the information database. It becomes explicit knowledge; by tracking and recording teachers' teaching behaviors and students' learning behaviors, WEB information is screened and stored, and the information is added to the database.
- **The second step** is to sort and classify the visual information in it, and directly use it as part of the knowledge warehouse; in addition, to mine this information to find out the valuable knowledge hidden in it and add it to the knowledge warehouse; add knowledge asset management to According to the knowledge in the knowledge warehouse, a knowledge graph is generated and displayed on the desktop.

- **In the third step**, teachers and students use the knowledge desktop to retrieve and filter the knowledge directly or after analysis or further mining in the knowledge warehouse into their own available knowledge, or use push-pull technology to present knowledge to teachers and students.

In the fourth step, in the process of acquiring knowledge, teachers and students will generate new thoughts and new behaviors, which will eventually be absorbed into the database to start a new knowledge cycle.

The fifth step, process monitoring monitors the entire process of knowledge management activities to find problems and eliminate exceptions.

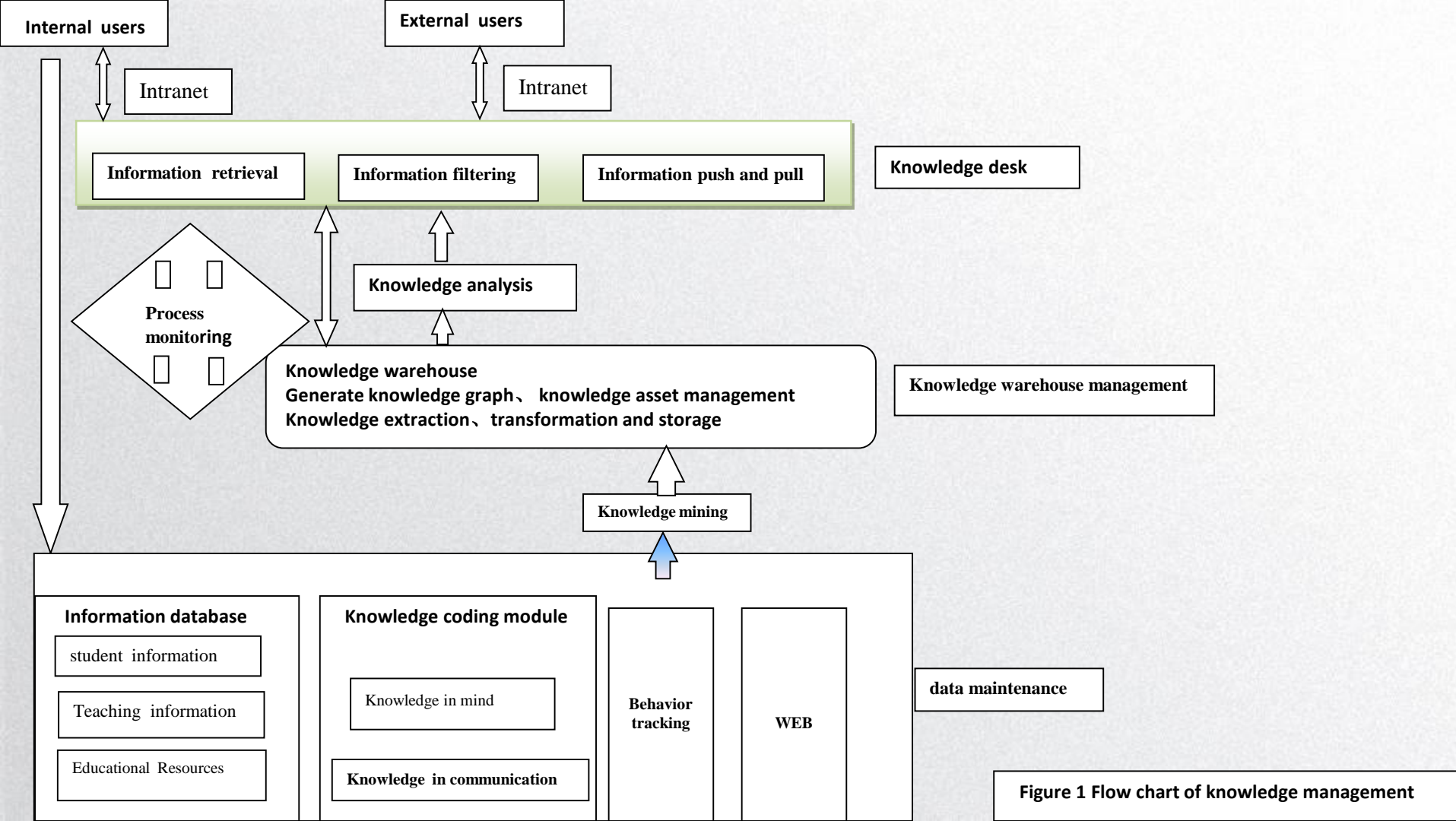


Figure 1 Flow chart of knowledge management

Knowledge management tools include: knowledge graph, knowledge warehouse, data mining, XML technology (Extensible Markup Language), intelligent push-pull technology

- Mining implementation: First, determine what type of knowledge to find according to the user's requirements, then select the appropriate knowledge discovery algorithm, select the appropriate model and parameters, extract patterns from the data, and use methods such as interest, confidence, or visualization for the patterns Carry out evaluations and get the knowledge that users need. The advantage of XML is that it separates the user interface and structural data, allows seamless integration of data from different sources, and can perform multiple processing on the same data, which can not only meet the needs of different users, but also ensure the security of the data. The characteristics of XML, the application of XML technology in the knowledge management system. Intelligent information push and pull technology is the use of artificial intelligence, machine learning, knowledge discovery, and knowledge reasoning methods to combine "intelligent information push" and "intelligent information pull" technology to improve the level of speculation of "sources" on "users" interest, and achieve Active and personalized information push services, while helping users quickly and accurately pull information from "sources", and improve user satisfaction.

An abstract composition of various-sized circles in white and dark blue, scattered across a light gray background. The circles have a slight 3D effect with shadows. The largest circle is white and located in the upper left quadrant. Other circles of various sizes are distributed across the frame, including a dark blue circle in the lower left and several smaller white and dark blue circles in the center and right areas.

Thank you !