EDUCATING THE EDUCATION INDUSTRY: TAKING SCHOOLS ONLINE

CRM jelly

VISION DOCUMENT

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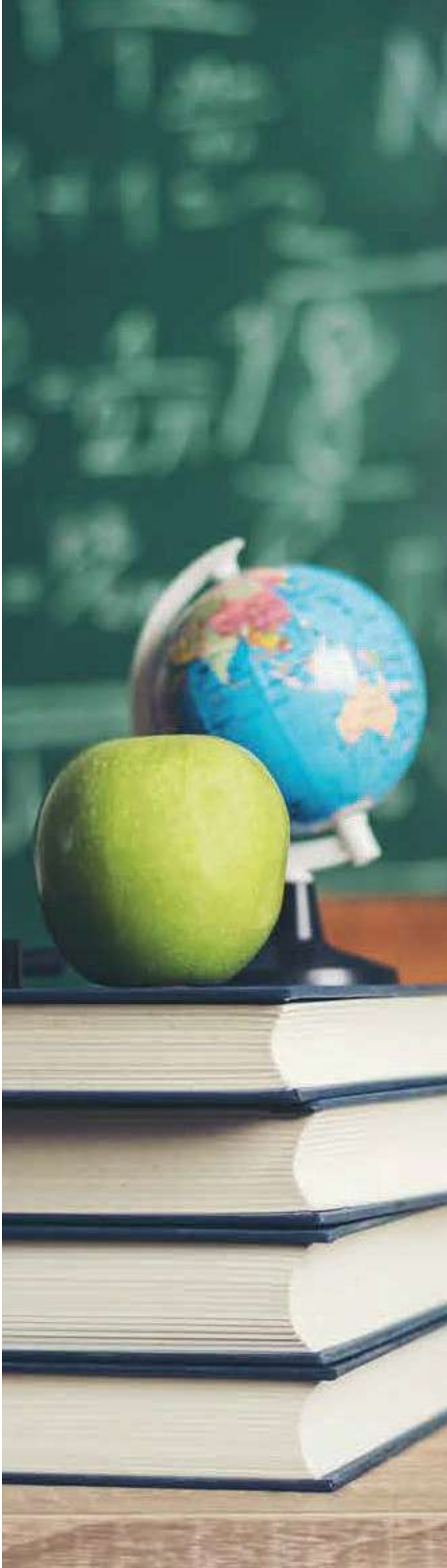
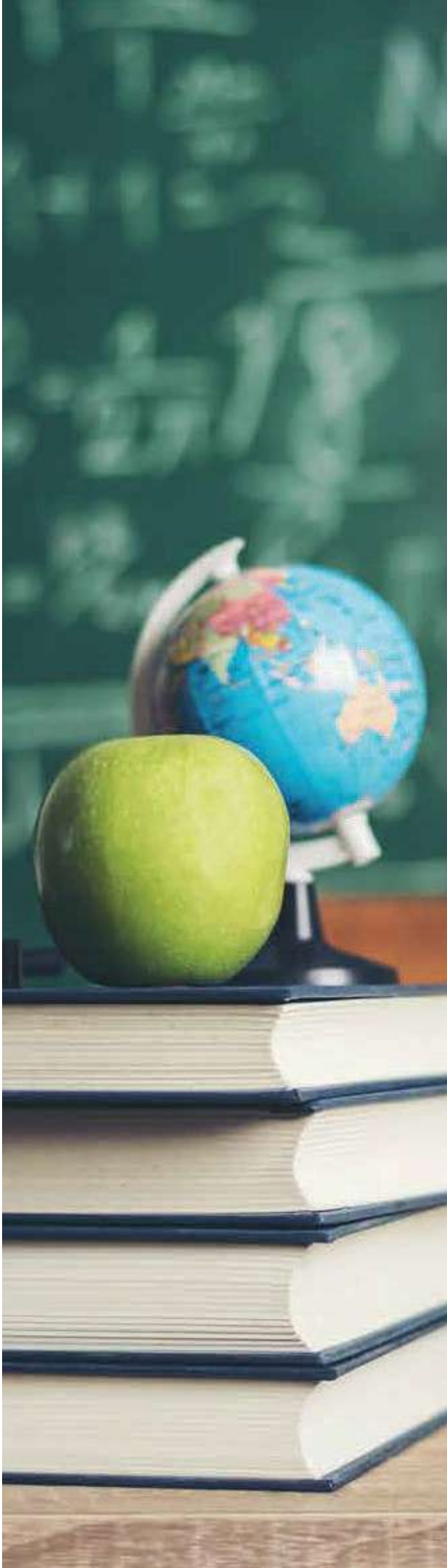




MAKING THE LEARNING PROCESS MORE LEARNED WITH PORTAL

Web portals can serve as powerful tools to help institutions such as universities, colleges, schools, and other learning hubs improve their collaborative activities. The Education Portal facilitates knowledge acquisition, sharing, and discovery for its users by allowing the institutions to publish documents, share ideas collaboratively and store information and knowledge in easily searchable repositories. Portals are increasingly becoming an important aspect of the information technology infrastructure of the education industry as it seeks to integrate the vast intellectual resources within a central virtual space with an easily accessible web interface.

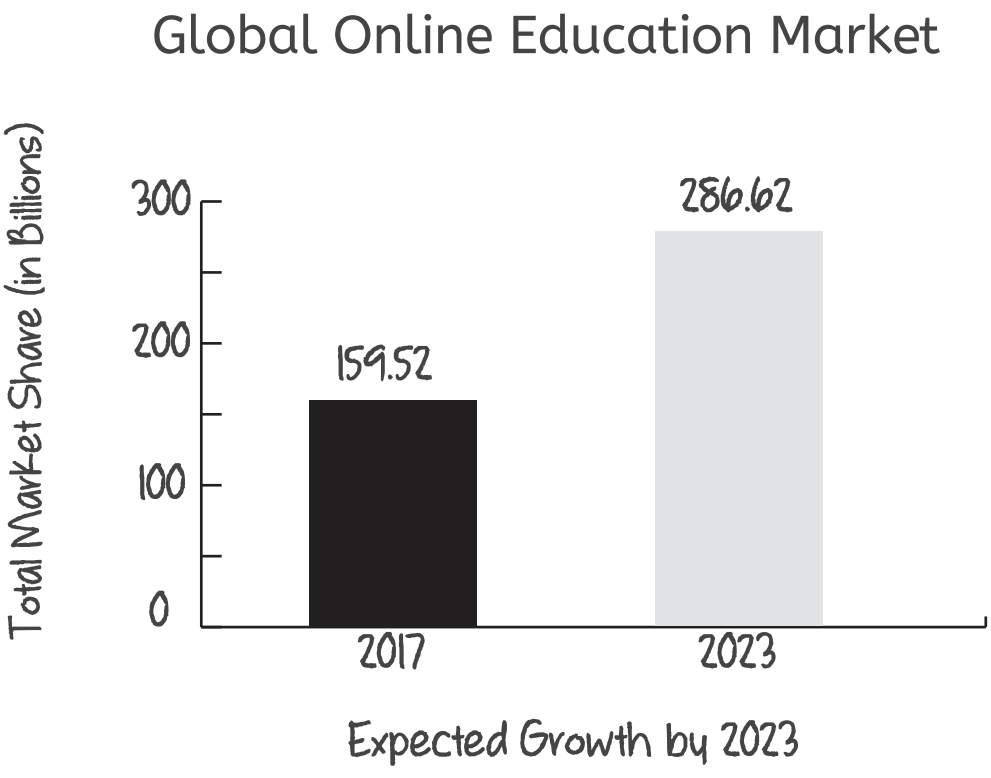
This whitepaper explores the process to comprehend and address the needs of the education industry that transforms into a digital platform for students to learn in a smarter, efficient and an interactive manner. The paper will also describe the development process, lesson management and student experience along with future directions to make the education portal a valuable knowledge management tool for universities, colleges, schools and etc.

Some crucial reports containing critical data explain the boom of Education Portals, are as below:

1. The global online education market is projected to witness a compound annual growth rate of 10.26% during the forecast period to reach a total market size of US$286.62 billion by 2023, increasing from US$159.52 billion in 2017.

2. The global e-learning market is forecast to grow at more than 7% CAGR to cross $300 billion in next 6 to 8 years.

3. In a recent State of Higher Ed LMS Market for the US and Canada report (Fall 2017), 87 percent of institutions and 91 percent of student enrollments rely upon Blackboard, Canvas, Moodle, or D2L Brightspace, but the PCMag reviews showed a different four winning the Editors' Choice awards (above bullet points). Blackboard remains the most popular LMS (28 percent of institutions and 37 percent of enrollment), Canvas is hot on its heels, accounting for 21 percent of institutions (up from 17 the previous year) and 27 percent of enrollment.



EDUCATION VIA PORTALS ON THE INTERNET

Before going on to describe what services seem to make most sense for an education portal, it is necessary to address the range of existing education portals on the Internet. This exercise highlights the understanding of the scope of a dedicated education portal. Our evaluations demonstrated that there is a good range of web portals currently available in the market with broad functionality. The various categories into which these portals fit are Networking Portals, Organizational Portals, and Resource-based Portals.

NETWORKING PORTALS

Web portals that provide various individuals (educators, learners, managers, and administrators) with a central point to access various educational tools and facilities (online and offline).

ORGANIZATIONAL PORTALS

An Organizational Portal is a portal constructed by a specific organization whose core business is to deliver educational materials and resource materials.

RESOURCE-BASED PORTAL

It is a portal, which provides access to various educational resources online. Generally, these types of portals contain adequate search facilities, links to other relevant organizations or institutions as well as subscription services.

In many instances, these services are merged in a single portal.

THE IDEA: DIGITAL EDUCATION

The education sector is booming at maximum pace but it is also standing out of the identity parameters of enterprises or any other business model. Moreover, the advancement of school education is also taking an active part in the online revolution. It is operating into two different models to cater to the learning needs of students of all ages, interests, and demands. These two digital education solution models are as below:

- Dedicated Portal for Schools, Colleges, and Institutions
- Online Education Portal

Let us go through the concept and convenience model of these Portals for better understanding of their scope, abilities, and processings.

1 DEDICATED PORTAL FOR SCHOOL/COLLEGE

With the advancement of technology, students and parents are also advancing by participating more actively in accessing information about what they are being taught and how. This advancement compels educational institutes to keep their learning process updated with the latest innovations and enhancements. Education Portal is one such technically advanced and enhanced tool that performs as an innovative solution. The portal-based information sharing and processing add convenience as well as transparency for the students, parents, and teachers.

Taking parallel objectives, Education portal also makes the learning process interactive. From class schedules to homework management, parents, teachers, and students all have real-time access to check the learning progress and student's engagement with it. Apart from the streamlined learning platform the Portal also assists institutions in systemizing their admin process.

SCHOOL MANAGEMENT PORTAL FEATURES

The School Information Management System(SIMS) provides the following School Administration based features:

School Administrators are able to:

PERSONNEL MANAGEMENT:

- Manage Teachers (Add/update teachers' personal information, Assign Teachers to classes as class or subject teachers).
- Manage Subjects (Add, update, and delete subjects).
- Manage Classes (Create classes, and assign subjects to classes).
- Send announcements to parents/guardians through SMS and email.

ENROLMENT MANAGEMENT:

- Add, update, delete or print student details, parent details, medical records etc.

GRADE BOOK MANAGEMENT:

- Subject teachers in each class are able to record each pupil's end of term marks/grades.
- Class teachers are able to view, print or send end of term results to parents and guardians through SMS and email.
- All Test papers for any year or term can be easily stored and accessed.

- Parents can receive results of their children for any term and year of their child's schooling.
- Teachers and parents can track the performance of each pupil in each subject from the time of admission up to graduation.

ACCOUNTS:

- School administrators are able to define when the fees are payable at the school and how much is payable per year.
- School accountants are able to record pupil payments and school transactions (i.e. income and expenditure).

TIME TABLE MANAGEMENT:

- Teachers can create classes, assign subjects for those classes, and generate master timetables for the class as well as themselves, very easily.

CALENDAR OF EVENTS:

- Schools are able to keep all their events in one place. This can work as a notification to show what all events they held during the year and their success.

PHOTO GALLERY:

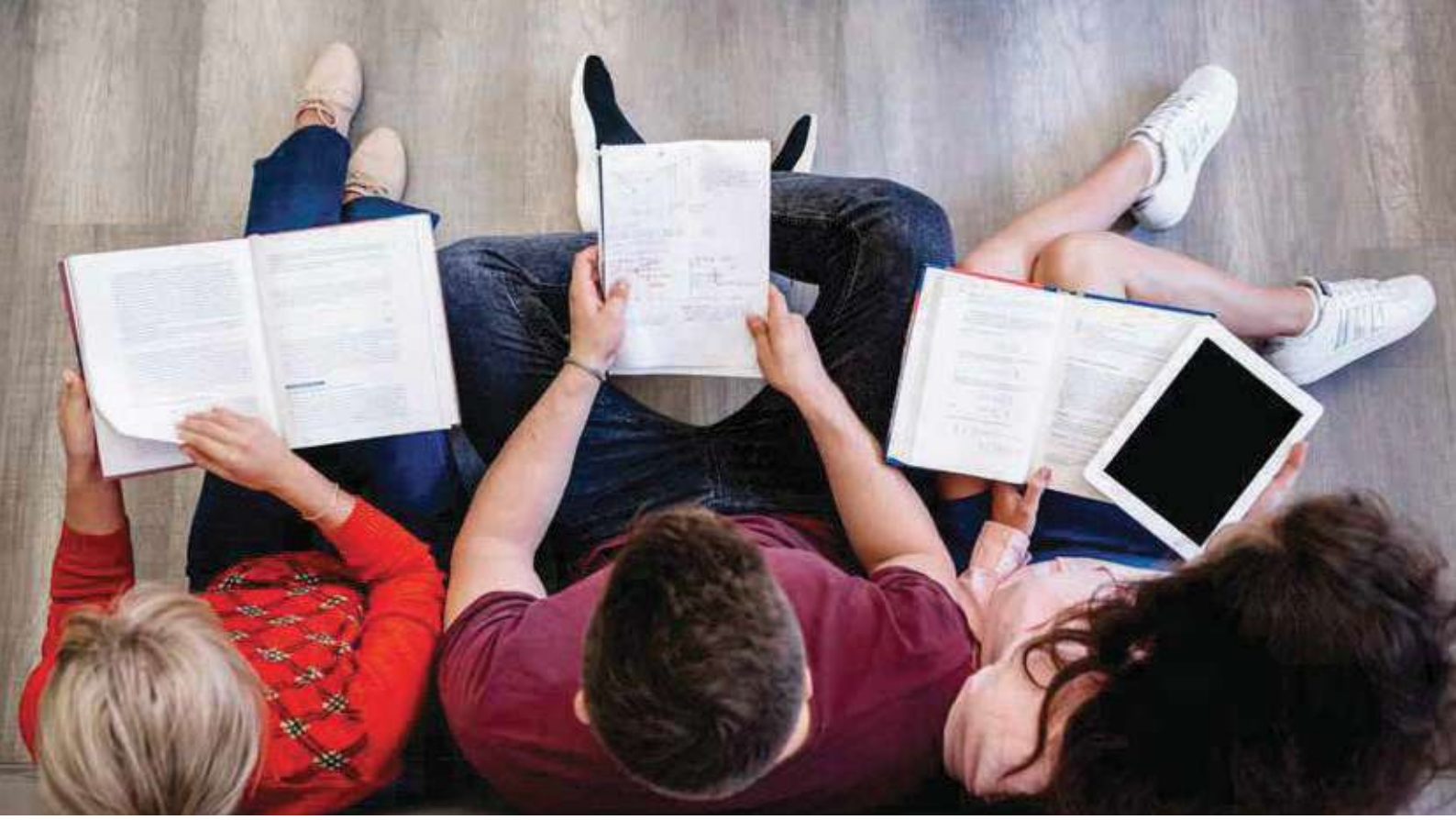
- Schools can have a photo gallery to put up pictures of campus events. This way students, parents, and teachers can access them whenever they want and at any time rather than restricting them to a notice board in some office.

FORUM FOR TEACHER DISCUSSIONS:

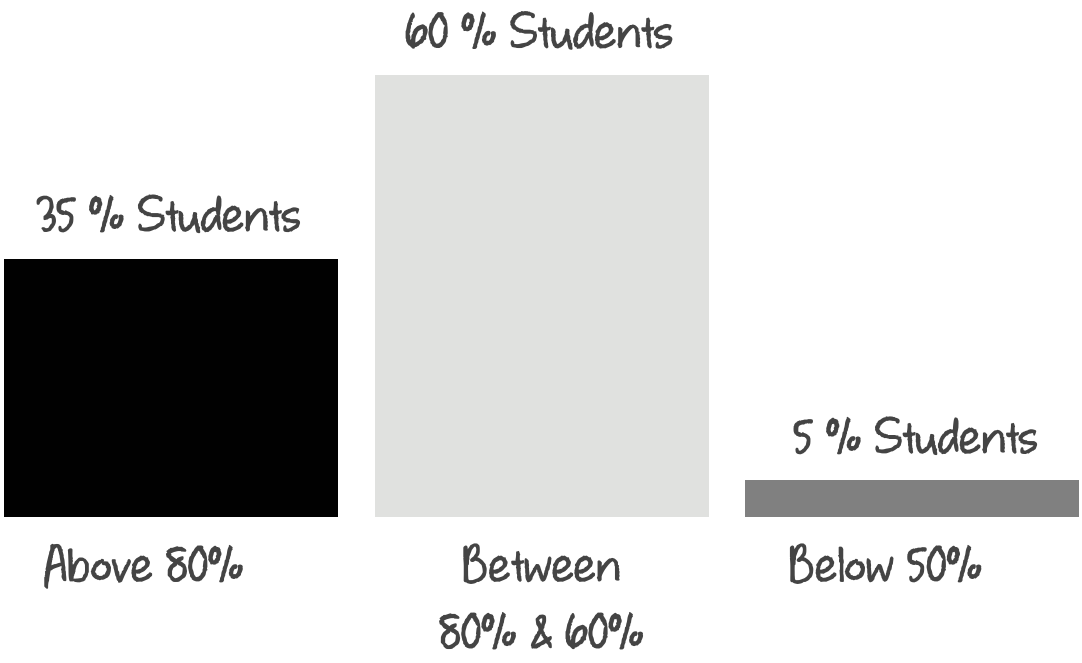
- SIMS can have a platform where teachers can have discussions and brainstorm ideas. It can be a place to keep all the ideas noted down so one can go back to it easily.

REPORTS:

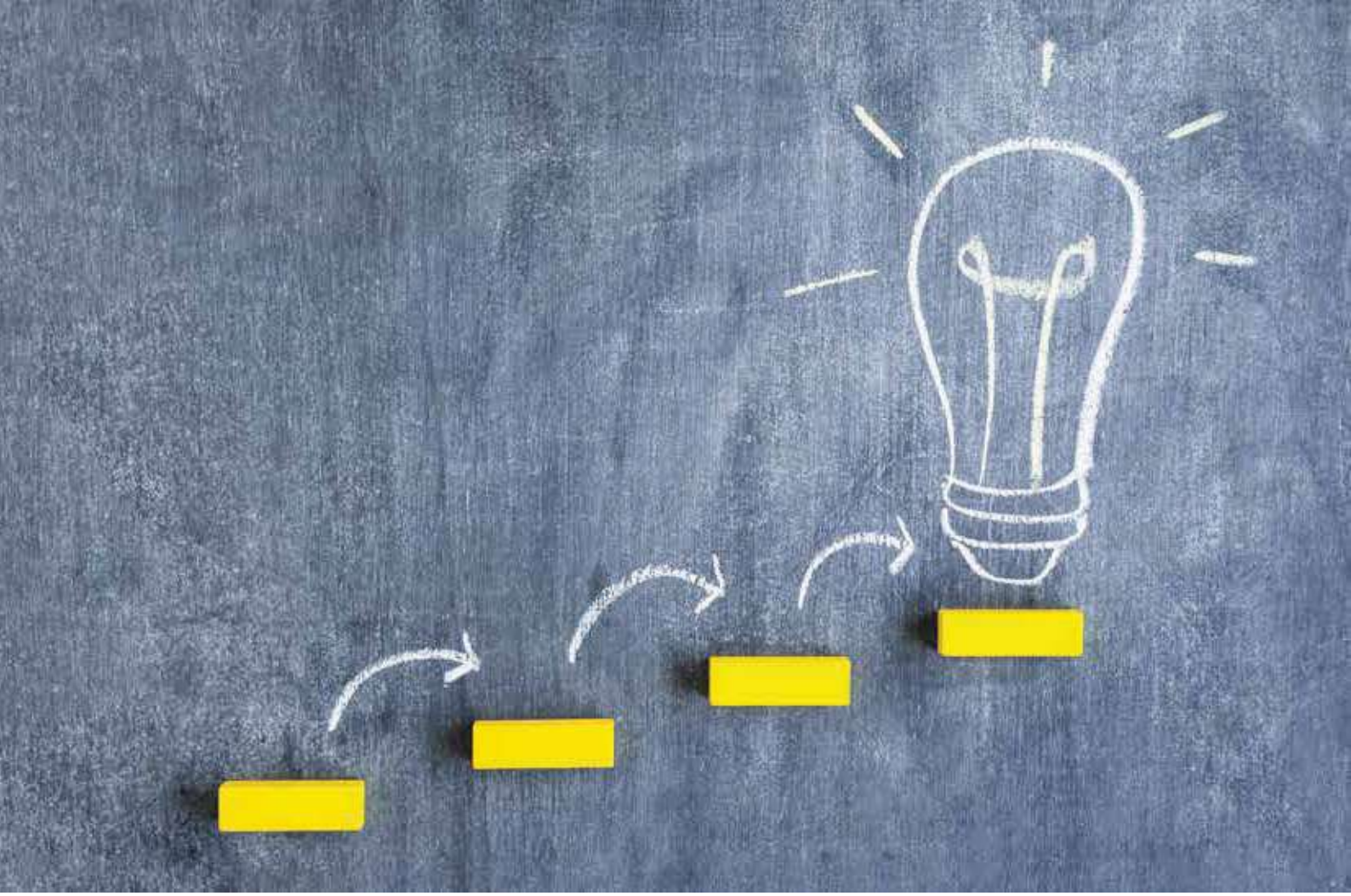
- School administrators are able to run reports (both textual and graphical) on school administration data, such as list and number of current teachers, classes, and subjects offered at the school.
- Enrollment (e.g. enrollments per term, and year, pupils who completed or stopped school per year including reasons for stopping such as financial reasons, failing grades, etc.)
- Accounts such as a summary of payments per year, pupil payment details per year, etc.
- Grade report, of each year. Students ranging from top of the class to underwhelming performing ones, as well as the students who are topping their class, can all be looked at. Here is an example of an annual grade report:



End of year Results: Grade 5

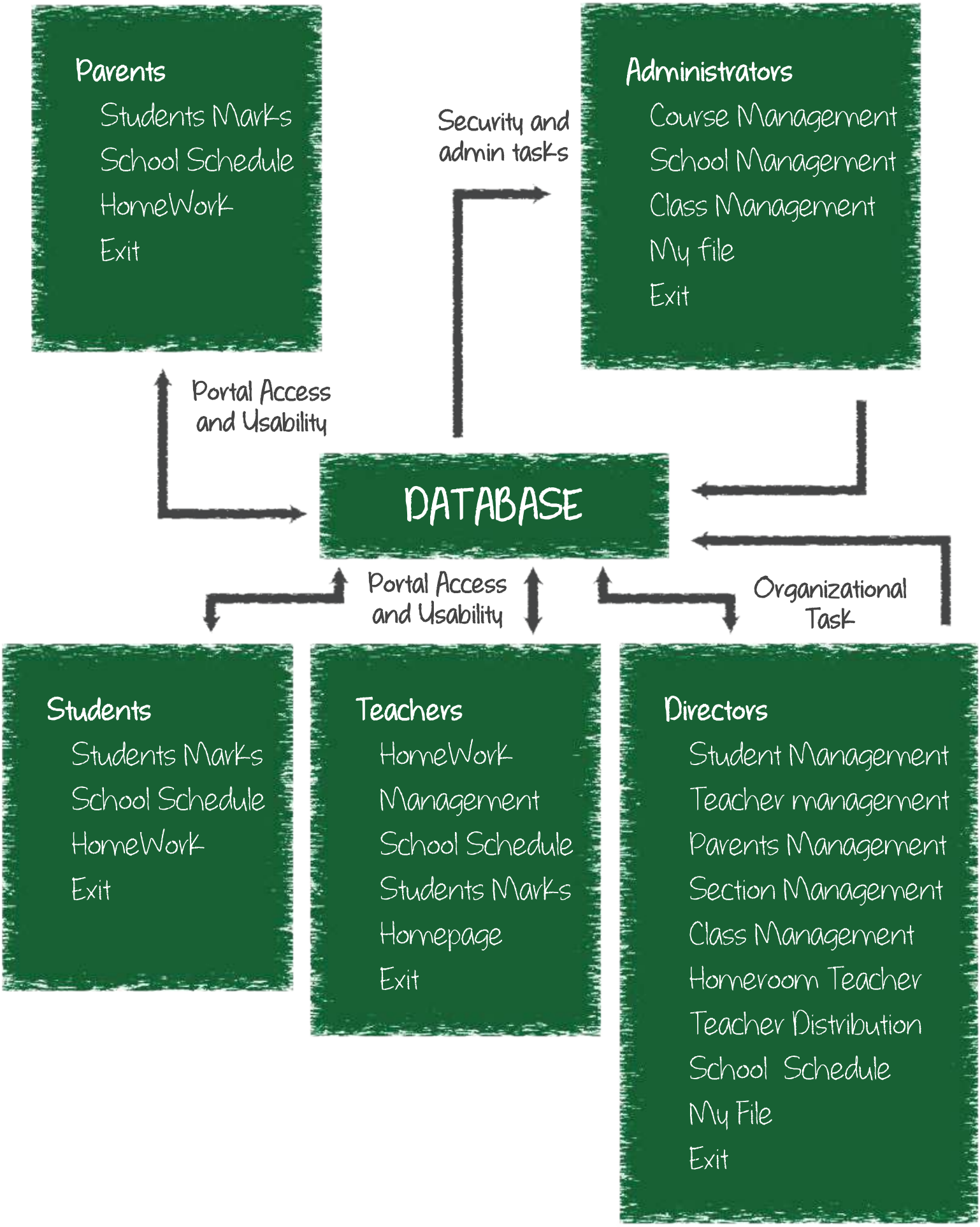


This is an example of the kind of report that an Education portal can generate. Yealy round up of marks of each school year, as well as other types of reports, per student, per year, among others mentioned above.



PORTAL : SYSTEM STRUCTURE

The system will consider teachers, students, and directors as commanding users. It will have an administrator who will be responsible for troubleshooting and failure recovering. Additionally, the administrator will define new users, give privileges, freeze account, delete accounts, update the system by adding new functions and maintain the system security. This system would also provide engaging communication between the school administrative members, teachers, students, parents, and directors. Such features provide an easy, user-friendly, and fast communication. Along with it, the portal will also reduce paper communication drastically. Teachers will also be able to reach students easily and will be more in contact with them. Parallelly, students will also get an interactive mode of learning that is transparent, easily accessible via portal. Parents will also be able to follow up for the academic and behavioral information of their children conveniently.


Parents
Students Marks
School Schedule
HomeWork
Exit
Security and admin tasks
Administrators
Course Management
School Management
Class Management
My file
Exit
Portal Access and Usability
DATABASE
Portal Access and Usability
Organizational Task
Students
Students Marks
School Schedule
HomeWork
Exit
Teachers
HomeWork
Management
School Schedule
Students Marks
Homepage
Exit
Directors
Student Management
Teacher management
Parents Management
Section Management
Class Management
Homeroom Teacher
Teacher Distribution
School Schedule
My File
Exit

PORTAL SYSTEM FLOW

1 ADMINISTRATORS

The Administrator page consists of different functions that mainly provide the control of the system. The administrative functions within the system are:

SCHOOLS MANAGEMENT

Manage school operations by listing tasks, fee routines, teacher listings, co-curricular activities, etc.

COURSE MANAGEMENT

Portal helps to manage, and monitor courses, teaching strategy, and progress. They can also add and delete courses.

CLASS MANAGEMENT

This feature keeps track of curriculum progress in all classesm individually. It also enables the administrator to assign classrooms, conference rooms, auditorium, and other parts of the infrastructure.

MY FILE

Security function that allows changing password.

EXIT

End of work.

2 DIRECTORS

The directors' page consists of different functions that provide an administrative operation of the school organization. It is important to note that the director of the organization will also have all the features that the administrative department has. The administrative functions of the school organization are the following:

FACULTY MANAGEMENT

Controls the security of teacher's accounts by changing passwords for teachers.

STUDENTS' MANAGEMENT

Add comprehensive information about students in their profiles which is required for managing each student individually.

PARENTS' MANAGEMENT

Control the parent's accounts by connecting parents' profiles with their children's.

CLASS'S MANAGEMENT

Controls the administrative tasks of the classes, like maintaining attendance of students, managing sick leaves, etc.

SECTIONS' MANAGEMENT

Add a new section for a particular school and the amendment to the existing personnel's profiles.

TEACHERS' DISTRIBUTION

Distribution of teachers to each grade according to subjects assigned to those teachers.

STUDENTS' REGISTRATION

Control the registration operation for the students and align them with the right class, school calendar, section, and parent accounts.

SCHOOL SCHEDULE

See the course schedule.

HOMEROOM TEACHER

Determine the homeroom teacher.

MY FILE

Security function that allows changing the passwords.

Exit

End of work.

3 STUDENTS

The students' page consists of different functions that allow the students to view student related tasks and download/upload homework. The view functions of the students' page are the following

HOMEWORK

The portal will exhibit the homework that the teacher assigns students. Furthermore, provides the possibility for the students to answer and re-send their homework to the teacher in order to be evaluated.

SCHOOL SCHEDULE

This function allows the student to see the course schedule, as well as their daily class schedule.

COURSE MARKS

This function allows the student to see marks of the subjects and courses they have taken throughout the year.

ATTENDANCE

It lets the students see their attendance, so they can make sure they are marked present in each class they attend. This also enables them to have a clear view of class(es) that they may be lagging in.

LEAVE MANAGEMENT

This module allows the student to submit the reasons for a leave of absence, as well as upload a scan or image of a doctor's certificate. This leave can then be approved by the teacher or the administrationand be converted into attendance, if and when required.

EXIT

End of work.

4 TEACHERS

The teachers' page consists of different functions that provide administrative functions at the class level, which are:

HOMEWORK MANAGEMENT

It represents the communication between students and teachers. Here the portal allows the teacher to upload homework assignments, assign it to students, receive the homework from students and grade them.

SCHOOL SCHEDULE

It provides the course schedule to help them make the lesson plans and keep track of the overall course schedule.

STUDENTS' MARKS

This function can be used to feed in students' marks as well as modify them if necessary. The teacher can also set grading parameters based on the marks. Individual grades of each paper can define the overall grade of the student.

HOMEPAGE

This shows the teacher all the courses they teach in what class. As well as the number of classes they have taken for each course.

EXIT

End of work.

5 PARENTS

The parents' page consists of different functions that give them access to view the status of their child/children in the school. The functions that are found in the parent page are the following:

STUDENTS MARKS

Allow the parents to see the marks of all the courses that their child is studying.

HOMEWORK

Allow the parents to see the homework that the teacher sent to the student, as well as the current status of the homework which includes statuses like due, completed or in progress.

SCHOOL SCHEDULE

Allow the parents to see the course schedule.

EXIT

End of work.

12 E-LEARNING PORTAL FOR ONLINE EDUCATION

Online Education is one of the most advancing revolutions in the education industry. It is trending broadly and gaining colossal traction on the global platform at a good pace. Though online learning has its own limitations, it is a pretty productive option for millions of students worldwide who are willing to learn things that are not available around them. Studies show that today, students are increasingly opting for more online degree programs than ever and taking at least one course with their interest through a suitable online platform.

Certainly, online education holds the potential to gain polarity with its attributes to the numerous advantages the platform offers. With this potential, eLearning and online education have revolutionized the contemporary education system, opening up some great opportunities for educators as well as learners. The online education has shifted the paradigm, and surely the future of education which is going to be more glorious.

The global Online Education Market is also increasingly gaining momentum thanks to technological advancements. These advancements are proving to be impactful for enhancing the quality of education, making it accessible remotely as well as making the administrative process of education more efficient.


Lenovo
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Me = L+I
~∃x[p(x)]≡∀x[~p(x)]
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Rectangle = ab
d=|x1−x2|
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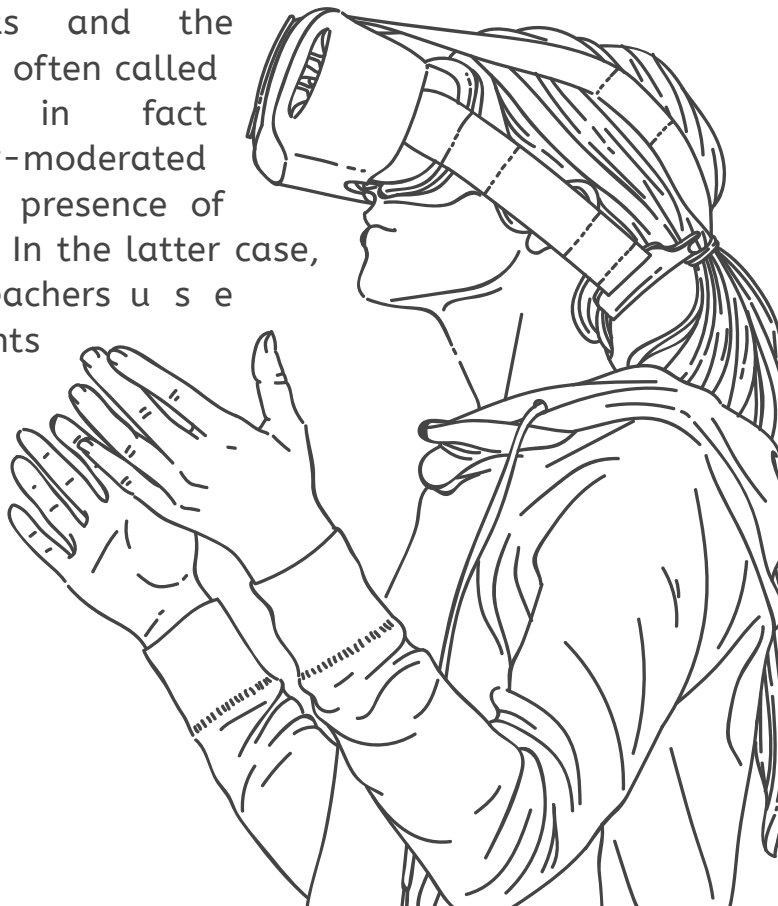
VIRTUAL CLASSROOMS

The terms Virtual classroom and Web classroom are often used in the context of contemporary distance education and Web-Based Education (WBE) to denote any means of live or pre-programmed Internet broadcast of information and/or a Web-based environment meant to support teaching and learning. When learners and teachers "meet" in the virtual classroom, they actually simultaneously access a particular URL that is dispensing information. Such a computer-accessible, online learning environment can fulfill many of the learning facilitation roles of a physical classroom in more or less the same way a blackboard does for a real classroom. In fact, virtual classrooms are often modeled after the metaphor of a physical classroom.

The interface of the supporting software may present a desk for each student, a teacher's desk, cupboards for resources, presentation board (virtual blackboard), module/assignment notebook, tools for chat and written communication among the teacher and the class or among the peer, access to online resources and tests, and even classroom posters. Note a difference between classrooms with physically present learners and virtual classrooms with remote interaction. In the former, Web technologies and other electronic devices and tools support teaching, learning, and communication in addition to live interaction among the students and the teacher(s). Such classrooms are also often called Web classrooms but are in fact technology-enriched typical teacher-moderated classroom situations with physical presence of both the students and the teachers. In the latter case, physically remote students and teachers use appropriate software environments and Web technologies as the means to interact, both synchronously and asynchronously.



ARCHITECTURE AND MODES OF INTERACTION

Architecturally, a web classroom is usually a client-server learning environment. Students and teachers work in a real or in a virtual classroom; in both cases, students can learn either individually or collaboratively. The web technology connects the teachers on the server side and the students on the client side.

There are at least four modes of a student's interaction with a virtual classroom:

- Authentication
  logging in for a new session.

- Learning
  Browsing, selecting and then consuming the material provided. The consumption of the content depends on the type. It is possible to have learning content in text, audio we well as video format.

- Assessment
  Answering questions the system asks after the le arning of a module is completed.

- Validation
  The mode in which the system checks and updates the student module by estimating the student's knowledge about different topics from the material they were supposed to learn.

FEATURES THAT E-LEARNING PORTAL RENDERS

- Video conferencing.
- Digital video (searching digital video libraries and live digital video transmission).
- Internet television (high definition TV transmission over the Internet).
- Streaming media Webcasts (playing multimedia contents as they get downloaded, without waiting for the entire download to complete).
- A range of different local student computers (desktops, notebooks, tablets, etc.), all locally networked and with access to the Internet.
- Live board and other devices and accessories. Likewise, depending on the domain and the pedagogical setting, different specific software components can be involved as well.
- Specific workspace tools for different domains, integrated with visual modeling languages and various construction kits (e.g., entity relationship modeling elements for the domain of database design), to help the students learn more efficiently by solving problems in the domain of interest.
- Different modeling and simulation tools, all with specific domain-related functionality and semantics; these can be defined externally, in the form of tool palettes that encapsulate domain dependent semantics.

- General "discussion board".
- Editing tool for taking and collecting individual notes.
- Hooks to standard text processors, spreadsheet programs, and other frequently used applications.
- Intelligent monitoring tools that can give both individual feedback and information for the teacher. The teacher can use such information to possibly enforce independent thinking and more active participation by some students.
- Student tracking tools; for example, when a student finishes navigating a particular module, the system may record it so that the next time it will automatically bring the student to the next module or "learning space".
- Collaborative learning support tools (such as shared and private workspace environments, tools for exchanging settings and data between learners and groups, chat rooms, and discussion forums).
- Specific problem-creation tools for teachers to prepare initial problem descriptions for students to solve, using some corresponding visually oriented languages.
- Specific help-creation tools for teachers to help the students when solving problems (by providing hints, using annotation elements and free-hand input).
- Electronic grade book for teachers; students can also see their own grades and compare them to class averages.

EDUCATING THE EDUCATION OF TOMORROW WITH PORTAL

Web portals have been used to automate and streamline administrative functions in higher education. The latest application of portals in higher education has been to create a point of access for administrative functions for students, such as registration, financial aid, and academic records, or for staff, such as timesheets, leave balances and the like. In this way, use of portals maximizes the efficient use of staff and students' time.

A university portal conventionally offers other stakeholders a vital link into the university. Parents are eager to see what their children are experiencing. State legislators and citizens are very inquisitive about what their tax money is being used for and how the university can contribute to the state's well-being and economic improvement. The current wonderful and challenging aspect of web management positioned by portals is the idea of creating and managing information systems whose chief purpose is to uphold positive relationships

between an institution's stakeholders and the institution. That's new!

They further suggest that portals represent new strategic means of increasing a university's competitive position by fostering innovation and research activities that can lead to greater acquisition of grants and improved prestige for the university. By harnessing the capability of portals to create learning and research communities, portals can leverage the huge intellectual capital base contained within the organization via collaborative, synergistic activities.

Portals also serve to empower individuals within a more broadly defined university community. By delivering quick and easy accessibility to both explicit and tacit knowledge as well as communities of practice, people are not restricted by geographic or other physical barriers in terms of communicating and exploring new knowledge. The portal will improve the efficiency of knowledge exchange and deliver a set of shared business objectives that include communications around best practices, a gateway to research on the use of teaching and learning through technology, professional development, policy development and review, and resource development. Portals facilitate knowledge transfer through the inclusion of multiple communication channels, such as message boards and directories; moving beyond the one-sided information exchange found in traditional web sites.

The Role of Knowledge Management in Higher Education:

While the concept of knowledge management may be new, institutions of higher education have been creating and disseminating knowledge as long as they've existed, through research and teaching. Faculty participate in knowledge transfer internally, within their respective departments, and externally, through their communities of practice.

Why is Knowledge Management Important to Higher Education?

Using knowledge management technologies and techniques in higher education is as vital as it is in the corporate sector. If done effectively, it can help garner better decision-making abilities, reduced "product" development cycle time (for example, curriculum development and research), improved academic and administrative services and reduced costs. The same factors, such as competition for students and resources, which have led higher education institutions to implement knowledge management systems in their administrative functions, make the case for expanding knowledge management practices to teaching and research as well.

The creation of knowledge management systems which tap into these existing pockets of knowledge is still in its infancy. Knowledge management is a brand new field, and some of the insightful experiments are just beginning in higher education. We suspect that there is a tremendous value to higher education institutions that develop initiatives to share knowledge to align their business objectives with social objectives. Institutions face increasing competition for students and resources. One important factor in attracting students and obtaining resources is the caliber of an institutions' faculty and the quality of their research.

Two universities with identical numbers of faculty, degree programs, expenditures, and enrollment may vary widely in how successful they are in rankings such as those conducted by US News and World Report. The difference often adds up to an intangible value that is added by effective knowledge management. The roles of teacher and researcher demand that staff poses as the expert and that their security and credibility with students and colleagues is dependent upon their knowledge base. This is important because, as to excel in the future, higher education institutions have to manage explicitly, systematically and comprehensively from a knowledge perspective.

Knowledge management contributes to the transfer of existing knowledge and the creation of new knowledge, including interdisciplinary collaborations. The likely uses for knowledge management in higher education include putting together publicly accessible repositories of scholarly interest and expertise. This will promote transparency and information exchange. Using knowledge management to systematically create channels and opportunities for knowledge transfer will help preserve and disseminate tacit knowledge within the institution.

Many faculty members possess institutional knowledge. It is rather a challenge to turn the information and skills currently residing in individuals and make them easily and widely accessible to all faculty members.

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