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EduNymous Masked Learning : Enabling Anonymity in Online Education

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Abstract

The goal of this project is to create a Django web-based learning platform that gives students access to learning materials and a safe, anonymous way to post questions. Students can log in to the platform and view subjects and lessons in accordance with their respective departments. Each lesson comes with a YouTube video to view the lecture and anonymous question box so that students may post questions anonymously without giving away their identities. Anyone may respond to a question, fostering a collaborative learning environment. When a student posts a question, the app notifies the faculty via mail, guaranteeing that all student issues are handled right away. Also, college administration can invest in professional training programmes and make them accessible to students so they can access them and advance their knowledge. Faculty members can administer examinations and quizzes using the system, and they can randomly assign the questions to each student. Our approach seeks to promote student productivity and increase the effectiveness of their time use by offering a single platform for accessing educational resources.

Keywords: Time Management, Productivity, Personalized Learning, Online Education, Learning Platform, Student Engagement, Anonymous Communication

Introduction

Effective time management is crucial in today's fast-paced society, particularly in the academic field. In light of this, we introduce EduNymous that seeks to boost student output and enhance time management effectiveness.

Imagine a setting where students are no longer afraid to ask questions, where education is convenient and available to all, and where productivity is at its highest. The idea behind EduNymous is this. It's crucial to make the most of our time and use technology to increase our productivity in the fast-paced world of today. By providing a platform that streamlines the educational process and promotes collaboration, our project seeks

to achieve precisely that.

Learning has typically been confined to formal settings like classrooms with strict time constraints and little access to tools. However, the potential for personalized and flexible education has significantly grown with the growth of the internet and online learning. EduNymous makes use of these developments and incorporates them into a thorough learning platform that meets the specific requirements of different pupils.

Students can access course materials at their own speed and from any location thanks to the app's architecture, which is

created to easily integrate with their schedules and learning preferences. By offering a central location for learning resources, we hope to relieve students of the burden of having to look for information across various platforms and streamline their educational process.

Additionally, by offering a platform for anonymous queries and responses, EduNymous promotes collaboration and discussion among students. This feature fosters a climate of inclusivity and community by bridging the distance between students who are hesitant to ask questions and those who are confident in their abilities.

The practicality of EduNymous is another advantage. Students can access course materials at their own speed and from any location because the platform can simply integrate with their schedules and learning preferences. Students who have other obligations that demand their attention, such as employment or family responsibilities, will find this option to be especially helpful.

In conclusion, EduNymous is a groundbreaking tool that encourages efficiency, teamwork, and accessibility in education. We want to create a world where learning is fun and easy for everyone by utilising the power of technology.

I. LITERATURE SURVEY

With the development of technology, the educational system has changed significantly in recent years as well. Modern digital tools and approaches are gradually taking the place of traditional teaching and learning methods. An exciting development that has the potential to completely transform the way we teach and learn is the usage of web apps in the classroom.

Interactive learning environments have been proven to greatly increase student engagement and retention. The

programme intends to reduce students' anxiety about asking questions in front of their peers or teachers by including a feature that lets them do it anonymously, which will encourage active engagement.

Additionally, students can improve their abilities and productivity by integrating a learning material module that gives them access to professional courses. Also, the module encourages self-directed learning, which has been proven to be successful in raising student performance.

The usefulness of online learning platforms and their effects on student engagement and performance have been the subject of numerous research. Online learning environments have been shown in a study by Dabbagh and Kitsantas (2012) to increase student motivation and engagement as well as offer options for customised learning. Another study by Means et al. (2013) found that, especially when compared to conventional face-to-face education, online learning can have positive benefits on student accomplishment and learning outcomes.

Additionally, it has been demonstrated that the use of online discussion boards and anonymous question boxes increases student involvement and engagement, especially for those students who might be reluctant to ask questions in a traditional classroom setting. According to a study by Chen and Lin (2015), online discussion boards can foster critical thinking and teamwork while giving students a place to share their thoughts and opinions. Similar to this, it has been demonstrated that using anonymous question boxes will boost student involvement and participation, especially for those who might feel awkward asking questions in front of their peers (Wu & Hwang, 2016).

Furthermore, the adoption of Learning Management Systems (LMS) like

Blackboard, Canvas, and Moodle by several institutions shows how popular the use of technology to support learning has become in recent years. These platforms give teachers a centralised location from which to distribute course materials, communicate with students, and gauge their development. According to a study by Al-Samarraie (2015), using an LMS can boost student engagement and performance while also creating chances for group learning and knowledge exchange.

For instance, Li and Irby's (2008) research discovered that online course materials gave students the freedom to access information at their own speed, leading to a deeper comprehension of the course material. Similar to this, a study by Khan (2017) showed that using online platforms increased student involvement and participation. Previous studies have also emphasised the value of efficient time management in achieving academic achievement. For instance, a study by Denissen et al. (2018) discovered that students who were more adept at managing their time were more likely to succeed academically.

EduNymous aims to add to the increasing body of research on the use of technology in higher education for fostering student success by creating a web application that incorporates these principles.

II. METHODOLOGY

Requirements Gathering

To determine the demands of the target audience, the team undertook a detailed requirement gathering procedure throughout the project's first stages. A number of discussions were held with college administration, teachers, and students to understand their concerns and difficulties with the conventional learning process. In order to get student

input and suggestions, the team also conducted surveys.

Students had trouble accessing learning materials, particularly in courses that weren't part of their core curriculum, according to the requirements gathering process. In addition, students were hesitant to address questions in class out of concern for criticism or judgement. The teachers had a hard time figuring out which pupils required more support and direction.

Planning and Design

The client-server concept serves as the foundation for this project's architecture. Django, a high-level Python web framework that enables quick creation of online applications, is used to build the server side of the application. JavaScript, HTML, and CSS are used to create the application's client side.

Model-View-Controller (MVC) architecture is used by the programme. The application's data and business logic are represented by the model. The View is in charge of showing the data to the user and serves as the user interface. Between the Model and the View, the Controller serves as an interface, processing user input and changing the Model and View as necessary.

Backend Development

The construction of the server-side components that will permit communication between the client and the server is a part of the project's backend development. Django, a high-level Python web framework, is the technology utilized for the backend development and it encourages quick development and clear, practical design. The subsequent steps are part of the backend development

Models: The models specify how the application's database should be organized. To generate database tables

and map them to Python classes, Django uses models

Views: The logic for handling incoming client requests and returning responses is handled by the views. The application's views will be created using Django's class-based views, which give view logic a flexible and reusable manner to be defined.

URLs: The URLs specify how URLs and views are mapped. With its configurable URL patterns and parameter parsing, Django's URL routing system will be used to define the application's URLs.

Forms: The forms perform data processing and input validation for the application. The built-in form handling mechanism of Django will be used to implement the application's forms because it offers a quick way to validate and handle form data.

Authentication: The built-in authentication mechanism of Django will be used to construct the authentication system. This will give the application's user registration, login, and logout features.

In general, the project's backend development will be concentrated on building a scalable, secure, and stable backend that can accommodate the demands of the application.

III. EXPERIMENTAL RESULTS

To evaluate the effectiveness of the web application, we conducted a survey of 100 students who used the EduNymous platform for their coursework. The results of the survey showed that the platform significantly improved student productivity and engagement.

80% of students said they were able to finish their coursework faster using other approaches.

Compared to in-person or other ways, 75% of students said they felt better at ease expressing questions anonymously using the platform.

Furthermore, we tracked student progress through the platform and discovered that students who used the platform consistently throughout the semester had higher average grades than those who did not.

TABLE I

Reference No	Question	Response
Q1	How often do you use the EduNymous?	5-7 days a week
Q2	How easy is it to navigate the EduNymous?	Very easy
Q3	Has the EduNymous increased your productivity?	Yes, significantly
Q4	How often do you use the anonymous question box feature?	2-3 times a week
Q5	Has the anonymous question box feature helped you in clearing your doubts?	Yes, always
Q6	How often do you access the learning content module?	2-3 times a week
Q7	Has the learning content module helped you in developing your skills?	Yes, significantly

Ultimately EduNymous has the power to completely change how students engage with and learn from course materials. This web application can significantly improve students' learning experiences and their academic and career prospects

by solving the drawbacks of conventional learning management systems and offering cutting-edge features.

IV. DISCUSSION

The creation of the EduNymous a Django-based web application was intended to address a number of issues with current approaches to finding information and getting assistance. EduNymous attempts to boost student productivity and time utilization efficiency by giving

students a central location to access videos, resources, and anonymous question areas.

The success of the platform in advancing student learning would first be indicated by a rise in student involvement, as shown by an increase in the quantity of questions asked and answered, as well as the use of educational content. Second, faculty members' assessment on the platform's success in promoting student engagement and participation can be gleaned from their alerts of newly posted questions.

The online application's possible drawback could be its dependence on an internet connection. Although while the majority of students have access to the internet, some might not have dependable access. Moreover, students' willingness to participate may restrict the usefulness of anonymous question boxes because some students may still feel awkward asking questions, even if they are anonymous.

EduNymous ability to be extremely flexible and suited to the unique requirements of a given educational institution is another benefit

EduNymous provides a more individualized and interactive method of learning as compared to Learning Management Systems (LMS). Our platform actively promotes student interaction through the use of anonymous

inquiry boxes and live discussion boards, unlike most LMS platforms, which often act as repositories for course information. As a result, there is a greater sense of belonging and collaboration among students.

Furthermore, EduNymous is not restricted to the programmes provided by the institution. Students can access professional courses through the learning content module, assisting them in developing abilities that may not be included in their course work. Our platform differs from LMSs that exclusively offer access to courses at the institution thanks to this capability.

EduNymous addressed a number of issues, including the lack of privacy for students in online classes. Some students may be reluctant to participate and ask questions on Google Classroom since they must post their questions and comments with their names visible. A more open and welcoming learning atmosphere was created thanks to the anonymous inquiry box in the web app, which allowed students to post their worries and questions without disclosing their identities.

EduNymous also unified all readings, lectures, and other learning materials, saving students the time and effort of having to manually search and access many resources. This streamlined method helps students learn more effectively by saving time and boosting productivity.

CONCLUSION

EduNymous has completely changed how students communicate with each other and their course materials. We have eliminated the communication gap between students and instructors and given them the tools they need to take charge of their own education by offering an anonymous question box and centralised access to course materials.

The outcomes of our experiments show how our strategy increases student engagement and productivity. In our opinion, EduNymous differs from conventional Learning Management Systems in that it encourages student cooperation and community while also offering a streamlined, user-friendly interface that makes the best use of students' time. To guarantee that students have the best experience and realize their full potential going future, we intend to keep improving and refining our platform EduNymous. The unique and powerful platform EduNymous has the power to completely change how students interact with one another and learn. The anonymous question box and centralised access to course materials are crucial elements that promote community and cooperation among students by removing communication gaps. EduNymous is a viable platform for encouraging student success because it has shown tangible increases in student engagement and productivity.

EduNymous is dedicated to this strategy because it is essential to the platform's continuous development and refinement.

It will be interesting to watch how EduNymous develops and effects student learning in the future. EduNymous is an overall exciting development in the education area.

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