WEB BASED ONLINE ARTICLE EVALUATING SYSTEM (AKDENİZ UNIVERSITY SAMPLE)

WEB TABANLI ÇEVRİMİÇİ MAKALE DEĞERLENDİRME SİSTEMİ (AKDENİZ ÜNİVERSİTESİ ÖRNEĞİ)

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ABSTRACT

With the help of the internet, people are now able to easily reach limitless information and share their knowledge instantly with lower costs in a virtual environment. This study shows the lower cost, rapid and productive evaluation and electronic storage and prompting and reviewing of the academic materials that were applied to be published in Akdeniz University Faculty of Agriculture magazine, using internet based applications effectively with a sample application. This system was developed with the codes that can be embedded into HTML (Hyper Text Markup Language) and has ASP.NET object trend programming option and for database operations SQL SERVER was used. Making the article evaluation process using web technologies reduces the time loss during the reviewing of the materials and the costs arising from over-documenting and this process creates the productivity and effectiveness technology provides.

Key Words: Article system, Information technologies, Web programming, ASP.NET

ÖZET

İnternet vasıtasıyla insanlar, sınırsız bilgiye kolay erişilebilmelerinin yanında bilgilerini sanal ortamda ucuz ve hızlı paylaşma olanağı bulmaktadırlar. Bu çalışma, internet tabanlı uygulamalardan etkin bir şekilde yararlanarak, Akdeniz Üniversitesi Ziraat Fakültesi dergisinde yayınlanmak üzere başvurulan akademik yayınların; elektronik ortamda saklanması, yetkiye bağlı olarak sorgulanması ve incelenmesi, değerlendirme sürecinin hızlı, verimli ve düşük maliyette gerçekleştirilmesini örnek bir uygulama ile ortaya koymaktadır. Sistem web tabanlı olarak ASP.NET nesne yönelimli programlama özelliğine sahip HTML (Hyper Text Markup Language) içerisine gömülebilen kodlar ile birlikte geliştirilmiş, veritabanı işlemleri için SQL SERVER kullanılmıştır. Makale değerlendirme sürecinin web teknolojileri kullanılarak gerçekleştirilmesi, karmaşık ve maliyetli bir sürecin iyileştirilmesini sağlanmakta; bunun sonucunda yayınların incelenmesinde yaşanan zaman kayıpları ve aşırı dokümantasyondan kaynaklanan maliyetleri azaltarak, teknolojinin sağladığı verim ve etkinliği oluşturmaktadır.

Anahtar Sözcükler: Makale Sistemi, Bilgi teknolojileri, Web programlama, ASP.NET

1. INTRODUCTION

The development in the communication technologies caused new areas such as information transfer, processing and storage and new technologies regarding these areas to emerge. Internet is a world-wide used, ever-growing communication network connected to each other with computer systems, enabling people to get information and share it with other people in an easy, cheap, fast and safe way (Özen, Gülaçtı, Çıkılı, 2004). In today's World where internet is growing and spreading rapidly, developing web-based software has increased (Deperlioğlu & Ergün, 2011). A Web-based system means applications and services which can be reached via web by using a web browser from all around the world (Answers, 2012). A good web based system makes the lives of the users easier by providing the users with benefits such as research speed/productivity, ability to move independent from places, online actions and saving time. Furthermore, the fact that the information in a web-based system will be stored orderly in a specific database enables people to store important information and use it again in the future (Satman & Reis & Karataş, 2012).

With the help of developing internet technologies many institutions and organizations made their data accessible through internet. Institutions and organizations backing themselves up with technologic developments, started to put their automation projects into practice via internet.

In this study, an automation software for an article sending, evaluating and following system through internet has been developed. The automation system has been designed in a way that it enables online interactions. The periodical publication and reviewerd, scientific journal of Akdeniz University Faculty of Agriculture, enables sharing information on national and international levels by publishing Turkish and English articles on agriculture, life sciences and areas regarding these themes. The journal is published twice a year, in December and June. The articles presented to the Journal are subjected to a pre-assessment by the Board of Editors. The Board returns the articles that it considers as not qualified to be published because of their contents or/and the mistakes regarding spelling to the authors without sending the articles to the reviewers. The articles qualified as to be published are sent to three reviewers, according to the reviewers' area of expertise, to be analyzed. A notification is given to the author about the article which is considered as not qualified to be published by the reviewers by a majority or unanimous vote and the documentation is not returned to the author. If the article is qualified to be published in the way it was presented to the reviewers, the author is notified that the article is accepted to be published. If the article is accepted to be published but there are some correction/proofreading suggestions made, the article is sent back to the author with the reviewer suggestions, so that the corrections could be made. After making the corrections, the author has to hand in the article to the editors with its final form in sixty days. The author is obliged to explain the reasons for the suggestions they didn't take into consideration in the corrections list, with scientific proof and resources. The Board of Editors makes its final decision after taking the reviewer reports and corrections into consideration and the author is informed about the result. The assessment period of the articles begins after the responsible author (the author who is corresponding, from the beginning of the presentation process to the publishing phase) hands in the master copy to the editors (Tanyıldızı & Bal & Güldemir, 2011).

With the article evaluation process being managed in the developed web-based article evaluation system; the observation of the phases, speeding up the process, getting feedbacks,

minimizing the waste of paper and time, storing the transactions in a database are done in a more efficient way compared to the present methods. This study is about how the developed web-based software makes the evaluation process of the articles to be published more productive and effective for the Editors and Reviewers of the Akdeniz University Faculty of Agriculture Journal.

2. THE STRUCTURE OF THE ONLINE ARTICLE SYSTEM

System software is prepared by using Visual Studio.NET 2010 Professional and SQL Server 2008R2 development platforms. The design of the Journal of Instrumentation (JINST) is taken as an example in the preparation of the interfaces (Journal of Instrumentation Web Page, 2012).

Users reach the home page of the online article system via http://proje.akdeniz.edu.tr/zfd web address and proceed by choosing a user name, a password and an authorization type. There are four levels of authorization in the system:

1. Editor: is authorized to accept and finalize the applications, to determine the co-editor to evaluate the articles, to reach and change the user information, to determine the authorization of all users and to follow the article evaluation process.
2. Co-Editor: is authorized to appoint reviewers for the evaluation of articles and to make the final evaluation.
3. Reviewer: is authorized to evaluate the articles sent to him.
4. Author: is authorized to send and revise articles, to reach and change his personal information and to follow the evaluation process.

In the system, the authorization levels mentioned above involves the authorizations below. Accordingly, a person authorized as a reviewer can also log in to the system as an author. Co-editor has the authorities of both reviewers and the authors. Editor has all the other authorities. The operation logic of the system is summarized in Figure 1.

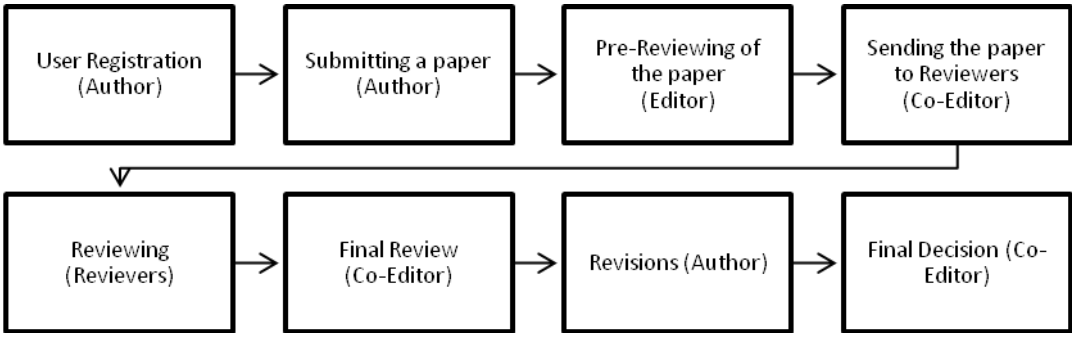


Figure 1- The structure of online article system

3. THE FUNCTIONAL PROPERTIES OF THE ONLINE ARTICLE SYSTEM

The general feature of the automation system contains the sending, evaluation and tracking of the article. As there are four distinct parts as editor, reviewer, author and article tracking as seen in Figure 2, each user is led to different pages.

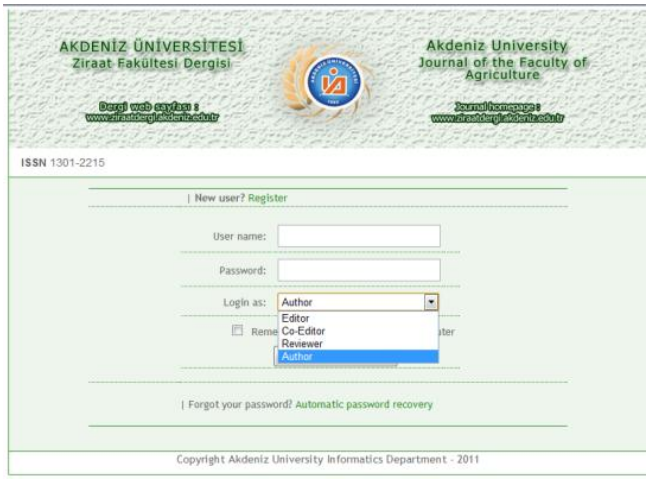


Figure 2-Log in page of the system

The System Created for the Authors

Users register to the system by clicking the Register link (Figure 3-a). during the registration the user is required to determine a login name and a password; also information such as title, name, surname, e-mail, institution, department, address and phone number is required. The system checks whether the data entry to necessary areas is done or not and the registration process cannot be finished unless these entries are completed. After completing the registration, a notification e-mail is sent to the user's e-mail address he logged in with.

When registered for the first time the users have the author's authority as default setting (Figure 3-b). The users who forget their user names and passwords can get the system to send an e-mail containing their user names and passwords to their e-mail addresses by clicking on the Automatic Password Recovery link on the system home page. When clicked on the Manuscript Submission link on the author interface, a screen appears containing a file upload option and where information on the article can be entered (Figure 3-c). On this screen, first of all, the type of the article is determined: (1) Research Article or (2) Review. Later, the title, author, key words and field of study of the article are entered in Turkish and English. After these entries are completed the file to be uploaded is chosen and uploaded. To be able to complete these operations on this screen, firstly the option about the copyrights has to be accepted. Otherwise, the Submit button is not activated.



(a) (b) (c)

Figure 3. (a) User member screen (b) Log in to the system (c) Send article screen display

Editor Interface

Editor has the authority to see the articles sent, to put them into process or to turn them back. Besides, the editor can reach to the account information of the users, can delete users or limit their access. He can determine the authority of registered users as co-editors, reviewers or authors. In the editor interface of the system (Figure 4-a) all of the articles uploaded to the system can be seen and the condition of these articles can be monitored. The details of these articles can be analyzed and the articles can be downloaded to a computer. To access to the article details, the View Details option in the Details section is clicked. If the article number, Turkish and English title of the article, submission date and the state of the article are sent to the co-editor before, details such as correction number, the latest reviewer evaluation date and co-editor evaluation date can be monitored. The uploaded file can be downloaded by clicking on the Show Submission option. Append Co-Editor of Reviewer button in this page can be used to determine a new co-editor or reviewer to send this article to. In the opening window the users can be searched according to their names, surnames, fields of expertise or authorities. To change authorities, the relative authority type should be clicked on (Figure 4-b). To see the final decision that the co-editor made, after the evaluation process is over, Show Co-Editor Decision button should be clicked on (Figure 4-c).

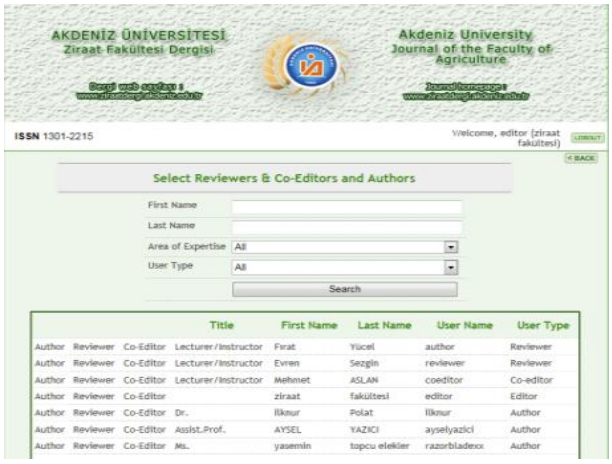


Figure 4 – (a) Editor Login Screen



Figure 4- (b) Determining co-editor and reviewer

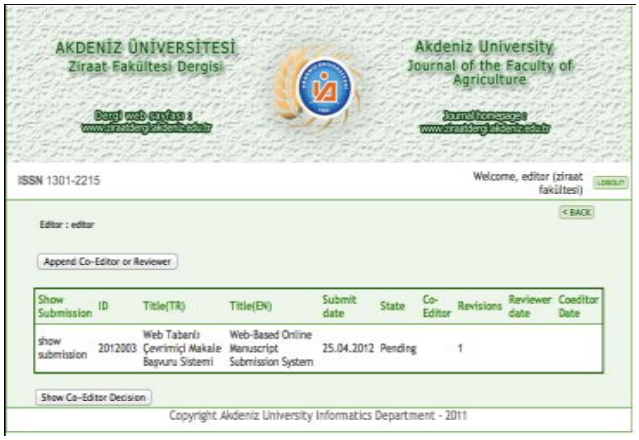


Figure 4- (c) Sending the paper to co-editor

Co-Editor Interface

Co-editor sends the article he received to the reviewers for evaluation. The sequence number, title, submission date, type and state of the article sent to the co-editor by editor is displayed on a table in the co-editor interface (Figure 5-a). Click the View Details option to be able to see the details on the article.

In the page where the details are displayed, the article sent by the author can be downloaded and the documents sent for revision can be viewed. With the Send Decision to Author option, the decision (acceptance, correction or decline) about the article can be conveyed to the author (Figure 5-b). Besides, a written document about the required revision can be added. Also, the revision decision is sent to the author's e-mail address as an automatic notification. When the co-editor wants to convey the last decision about the sent article to the editor, an evaluation form can be filled out and sent to the editor by clicking on the Send Decision to Editor option located on the bottom of the page. This decision is also entered to the system as the last decision taken after the article evaluation. This last decision is sent to the editor via e-mail.

When clicked on the Send Reviewers button, people can be searched according to their names, surnames, authorities and areas of expertise on the new window that opens. By clicking on the send manuscript option, the chosen person gets reviewer authority and an automatic e-mail is sent to that person asking whether he accepts the assignment or not (Figure 5-c). In this e-mail, the title and the summary of the article are also included.

In the e-mail that is sent to the person appointed as reviewer, two links to be clicked in the case of accepting or rejecting the assignment are included. These links are controlled by producing a random token. After the person appointed as the reviewer, the article is displayed on the related reviewer interface. If the assignment is declined then the article cannot be seen on the account of the person.

To view the reviewer opinions, the Select link across the related article in the table where articles are listed in the co-editor interface is clicked. When clicked on this link, the reviewers that the article is sent are listed above. The evaluations and the reports of the reviewers are displayed with View Evaluation and View Report options. If the evaluation is not completed or not uploaded yet, a warning is displayed.



(a) (b) (c)

Figure 5-
(a) Co-Editor Log In Screen (b) Author notification screen (c)Sending to the reviewer

Reviewer Interface

The articles whose reviews are accepted by the reviewers are listed in the Waiting Manuscript section of the reviewer interface (Figure 6). With the View Submission option here, the uploaded article can be downloaded by the reviewer. By clicking the Evaluation link in the reviewer interface, the evaluation of the related article can be made. When clicked on this link, after giving answers to the multiple choice questions asked in the article evaluation window that opens, the reviewer can upload his own evaluation report if he wants to.



Figure 6- Waiting and revieved articles display screen

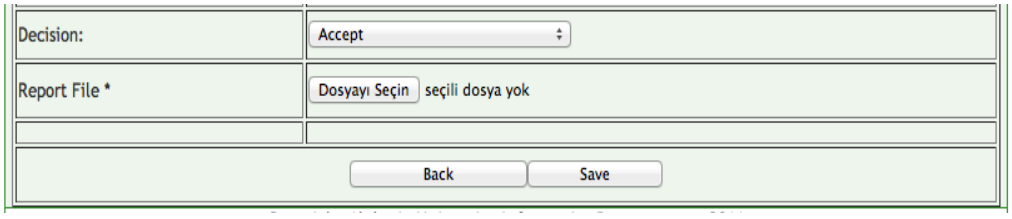


Figure 7- Sending of the evaluating file back to the co-editor

The options located on the bottom of the article evaluation window are used to make the reviewer decision and to upload the reviewer evaluation report to the system. The reviewer can make decisions for an article such as accept, minor revision, major revision or reject

(Figure 7). If there are several files to be sent, these files can be uploaded to the system after being archived. The system accepts the extensions of archive files (zip,rar etc.).
Corrections cannot be made on the files saved by clicking on the Save option. A notification e-mail is also sent to the co-editor saying that the evaluation is made. After that, the article is displayed in the reviewer interface in the Reviewed Manuscript section. The evaluations can be viewed by clicking on the View evaluation and View Report links.

Conveying the Decision to the Author by the Co-Editor

After all of the reviewer opinions are conveyed to the co-editor, these opinions are evaluated by the co-editor and combined into one opinion. The evaluation of the co-editor is uploaded to the system via the View details link and this last uploaded document and the article evaluation result is sent to the author as an automatic e-mail. The author can download and analyze the evaluation document by accessing his own account.

Uploading the Author's corrections to the System

When the major/minor revision decision is made, this decision is conveyed to the author via e-mail. The author can upload his corrections with the View details link by logging into his own account (Figure 8).

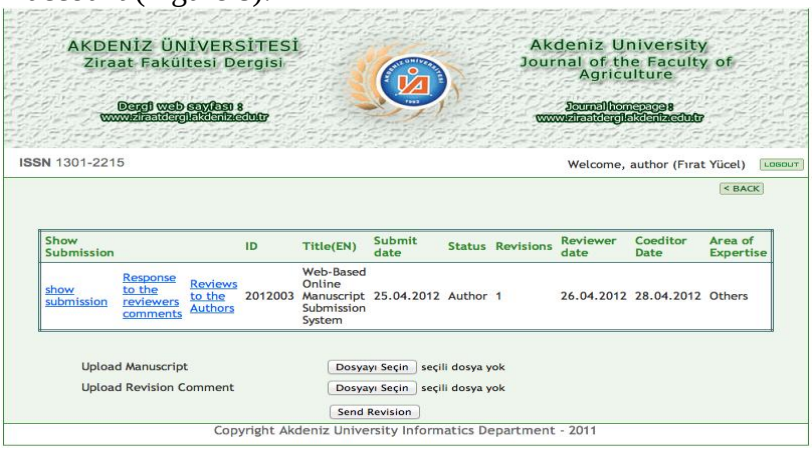


Figure 8- The image of send-back screen of the corrected article by the author

By clicking the Show Submission button in the details window, the author can download the article he sent. He can also download the evaluation result with the Reviews to the Authors section. The author uploads the reviewed article with the Upload Manuscript option and with Upload Revision Comment he can upload the corrections/reviews to the system. When the Send Revision button is clicked on, the article is sent to the co-editor again. Besides, the co-editor is notified via an e-mail when a new correction is uploaded to the system.
To be able to reach the files he sent, the author can use Show Submission and Response to the reviewers comments links. After this phase, a new evaluation process can be started or the last decision can be made.

Making the Last Decision About the Article

After the correction phases are completed the last decision about the article is conveyed to the editor by the co-editor via the system. To do this, the co-editor fills out the send decision section in the article details page and sends. An automatic notification e-mail is sent to the editor about the last decision on the article. The editor can view the last decision made by the co-editor, in the details section by opening the article page.

4. CONCLUSION

Implementing the operations made in the education institutions with web-based software in accordance with today's technology is of vital importance in terms of credibility, lowering the cost and time of the evaluations, and the efficient progress of the management process. The usage of web-based systems reduced the load of the progress management by transferring the procedures causing complaints from the authors such as piling up of the article evaluations into the software. The developed system performs the article evaluation process between the co-editor and editor as web-based. There is no need for the users to install different software to their computers to be able to use the system. Possible time and document losses are prevented by carrying the operations such as creating article lists that the editors make, doing the reviewer evaluations and conveying the evaluation results to the authors to the web with the developed software and thus making these operations independent from places.

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