

## The Effect of Rinfogroups as a Discussion Media in Student Learning Motivation

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### Abstract

*In the current era of globalization, technology management has touched every aspect of human life. The combination of these two factors will become an innovation in the management of education. At Raharja College, the entire academic community has facilities in the form of an official e-mail, namely Information which functions as a communication medium. However, there is no place for discussion management between students and lecturers, so that the discussion process of learning is considered to be ineffective and inefficient because it is still done directly. Therefore, it is necessary to optimize the use of RinfoApps which is used as a discussion medium for online learning. RinfoGroups is one of the Google System features that can be used as a formal media for the online learning discussion management process. By creating a forum called the class mailing list at RinfoGroups, students and lecturers can discuss anytime, students can share about learning material, and lecturers can also monitor the effectiveness of student discussions, this certainly has a significant influence on student learning motivation. Supported by 2 (two) research methods, namely library research and observation methods. The final results of the research that has been achieved are the formation of a discussion media that is easily accessible anywhere and anytime so that the discussion process between students and lecturers becomes more effective and efficient.*

**Keywords:** Rinfogroups, Media Communication, Students, Discussion

### 1. Introduction

Education is supposed to follow technological developments, not the other way around. Education adapts to the development of increasingly sophisticated technology with a blend of education and technology that will create an innovation [1]. Both of these factors can be related to each other. The innovation is the iLearning method that is applied to Raharja College [2]. There are several majors with a concentration that have applied this method, which is the concentration of excellence in Raharja College because the learning method implemented implements the iLearning method and iPad devices as learning media [3]. The iLearning method was created by Ir. Untung Rahardja in 2009, this method invited students not only to study but also to work, play and pray.

In the iLearning method, there are 10 pillars of IT, one of which is Rinfo. Rinfo is an official e-mail used by Raharja Higher Education as a communication medium as well as a tool for conducting discussion management in the learning process [4]. Adapting from Google for Education, a new method called Rinfo for Education is created or can be called RiDu [5]. The iLearning method where Rinfo is used as the primary media, which is integrated with 10 other IT pillars. Because to access the other 10 IT Pillars, registration is required using the Rinfo account. The benefit of using the Rinfo account as an official

campus account can be seen in terms of security, which will prevent people from outside the institute from misusing the use of 10 Pillars of IT at Raharja College [6]. With this Rinfo, a new concept called RiDu (Rinfo for Education) is created, iLearning learning using Rinfo email as the main media. Many universities still use conventional methods of communicating, such as correspondence, writing documents, making announcements, etc. [7]. With this Rinfo, we can use Rinfo Docs to write letters or documents, and make announcements with Rinfo Calendar. In addition, the presence of Information and Information Technology is expected to support the learning process in higher education, such as discussions on mailing lists (Rinfogroup), various sharing (sharing) learning documents at Rinfo Docs, or direct discussions using Rinfo Hangouts [8].

In the previous research conducted by Aris Martono, Padeli and Rosalina Miliartha in 2016 entitled "Designing Online Learning Discussion System Applications at Higher Education." This study discusses online discussion forums that are presented in the form of web, which later online discussion systems this is in the regular or non-learning class designation. The benefits of research are that it can facilitate the process of learning communication between lecturers and students [9]. Subsequent research by Agus Putranto from Bina University in 2012 entitled "Designing a Mobile Online Learning Discussion Forum". This study discusses the discussion forum on Elearning media presented in the form of mobile. One important feature in teaching and learning activities is the discussion forum. The results of this study are that students and lecturers can easily access discussion forums by accessing m-learning, students can also download lecture material and get information about lectures [10]. Further research was conducted by Dewi Immaniar Desrianti, Lusyani Sunarya, and Dwi Fitri Permania in 2015 entitled "Utilization of Communication and Information Technology (ICT) at Rhjfox as a Discussion Forum". This study discusses an online Discussion Forum named Rhjfox which is used as a forum to communicate with the aim of giving opinions, motivations, solutions, and information related to the ongoing discussion. By utilizing Rhjfox, discussion activities can be carried out anywhere and anytime as long as it is connected to the internet so students and lecturers can discuss without having to meet face to face so that it is more effective and efficient [11].

## 2. Research Methode

There are 4 (four) stages used in conducting the preparation of this research, namely as follows:

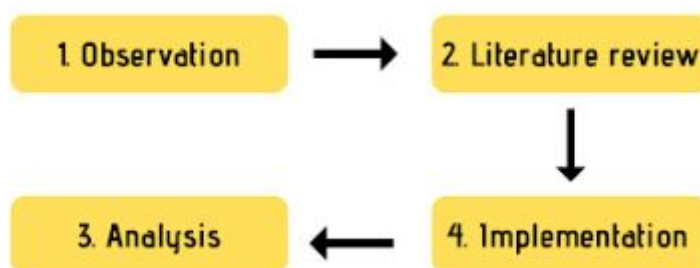


Figure 1. Research methods

### 2.1 Observation Method

The method of observation is done by direct observation to process over a system. The purpose of these observations is to describe the setting in the learned, activities that take place, people involved in the activity and meaning of perpekstif they were involved in the incident were observed [12]. On the research of this Observation is executed directly on STMIK Raharja.

## 2.2 Library Study Method

Many previous studies on RinfoGroups can be used as data sources. Among them are several books and research that are used as sources of literature, namely:

1. Research conducted by Indri Handayani, Herrafika Kusumahati and Alpiyah Nurul Badriah from Raharja College in 2017 entitled "Utilization of Google Spreadsheets as a Media Making Dashboards on iFacility Official Sites in Higher Education". This study discusses the application of AC reporting dashboards on the iFacility Official site by using one of Google's features, namely Google Spreadsheet which can be used to hold data and process data to be used as information needed. The stages of identification The implementation of the research is carried out using the observation method, interviews with the division of operations, system comparison, prototype design and system implementation into the official site iFacility [13].
2. The research conducted by Untung Rahardja, Qurotul Aini, and Dian Mustika Putri from Raharja College in 2018 entitled "Utilization of Automated Email Systems (AEMS) as Media for Notification of Learning Outcomes" in this study discusses the quality of education applied by universities to have cause and effect of evaluation in an integrated, periodic, organized and carried out manner. So, this encourages all universities to continue to innovate in providing good academic service facilities to their community. Especially in the delivery of information on student learning assessment results, which are required to be conveyed well [14].
3. Research conducted by the Qurotul Aini, Rubin Hakita Irwin, Eka Marjayanti in 2017 with the title "Notification of iLearning Learning Through Media iDu Application by Using Rinfo E-mail". This study discusses the system of delivering lecture information between lecturers and students online on the iDu application media via Rinfo email. So that this is useful so that the delivery of information between students and lecturers can be delivered efficiently, anywhere, anytime [15].
4. The research was conducted by Untung Rahardja, Qurotul Aini, and Nuke Puji Lestari Santoso in 2018 with the research titled "Integration of the API-Based YII Framework in the Attendance Assessment System" which explained that a University has several academic activities for example activities in learning or guidance. Raharja College has a unique email for Raharja Personal whose platform is the same as Gmail, which is called Rinfo email. Rinfo or commonly called Raharja.info e-mail is part of Tpi (Ten pillars of IT learning) as a communication tool in the form of an official e-mail for raharja individuals, as well as staff lecturers [16].
5. The research was conducted by Chasfriati Filja, Mardhiah Fadly, and Syefrida Yulina from Caltex Riau Polytechnic in the form of Applied Computer

Literacy journal report Vol. 5 No.1 2016 entitled "Information System for Evaluating Student Participation in Online Discussions Using Content Analysis Methods". This study aims to design and build an information system for evaluating student participation in online discussions. The method used in this study is the content analysis method, namely research techniques in making valid conclusions based on the content by considering the context. The type of testing in this study uses the white box testing method for the QLF and Rubric program codes [17].

6. The research was conducted by Alwiyah and Achmad Baihaki from Wiraraja University, Sumenep with the research title "Application of Computer-Based Accounting Information Systems in Decision Making to Increase Revenue Effectiveness at the Republic of Indonesia Radio Public Broadcasting Institute (LPP RRI) Station Sumenep" which explained that accounting information systems computer-based, the use of these systems, especially in service companies, is very relevant to be a system that is in accordance with the need to further improve the level of modernization in decision-making to increase revenue efficiency as much as possible from this production [18].

Of the 5 (five) Literature Reviews that have been described, many studies have been conducted on online discussion media and some have discussed web-based online learning discussion forums, until the use of Rhjfox as a discussion forum for students and lecturers, making discussion forum features on mobile applications even making information systems for evaluating student participation in online discussions. But it can be concluded that no research has been conducted regarding the use of RinfoGroups as an online discussion media used by the iLearning class at Raharja College.

### **3. Results and Discussion**

#### **3.1 Problem Analysis**

There are 3 (three) differences in this study from those described above. The first difference is that this research utilizes one of the features of the Google System, namely RinfoGroups, while the three studies above use the website and mobile application in the media discussion. The second difference is that discussion media is designed to be used by regular students, which in this study is intended for iLearning students. The third difference is that to be able to hold discussions students only need to open their Rinfo inboxes while in previous studies students must visit the website or have a mobile application in advance to be able to hold discussions.

The process of discussing in class conducted face-to-face has 3 (three) problems. The first problem is that students and lecturers have difficulty in conducting the discussion process outside the classroom or outside the lecture hours because there is no container that can be used as a media for discussion. The second problem is that the lecturer has difficulty conveying new information quickly to all students, and must deliver messages one by one to students. The third problem is that lecturers cannot assess student activity in a direct discussion so student motivation decreases, especially for iLearning classes because

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in direct discussion the lecturers do not have data on which students are actively discussing if they do not record it manually so that lecturers cannot judge active student discussion.

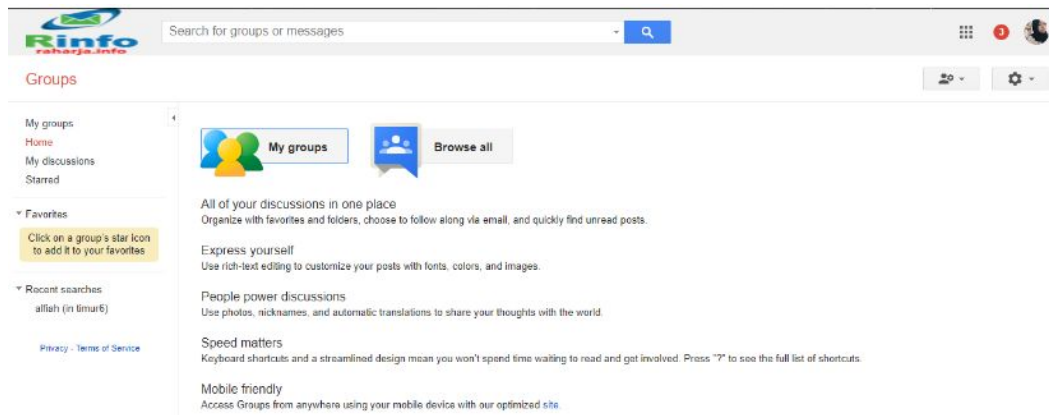
### 3.2 Troubleshooting

RinfoGroups itself has been integrated with Rinfo so that users no longer need to register to be able to connect with Groups Mailing Lists. In RinfoGroups we can create a class mailing list that contains the Rinfo account of all students and lecturers in a class so that the entire Rinfo address is collected in a group mailing list or discussion group in a class. In accessing RinfoGroups it is also very easy, which is by entering the Rinfo login and entering your username and password, after that you can already connect with the discussion group. To have a discussion on RinfoGroups, we only need Rinfo and the discussion group can be accessed without having to log in repeatedly.

The use of RinfoGroups in a class can be a formal forum or community for the discussion process between students and lecturers outside the lecture hours so that the discussion process can be accessed anywhere and only without being constrained by space and time. Another benefit of RinfoGroups is that members of a group (lecturers or students) can provide information and get information quickly, accurately, and as needed. By using RinfoGroups, lecturers can also monitor the activity of student discussions in a statistic available in RinfoGroups which can be accessed in the about menu. In this menu, the lecturer can see the activity in a class mailing list of the number of messages sent by students on the class mailing list.

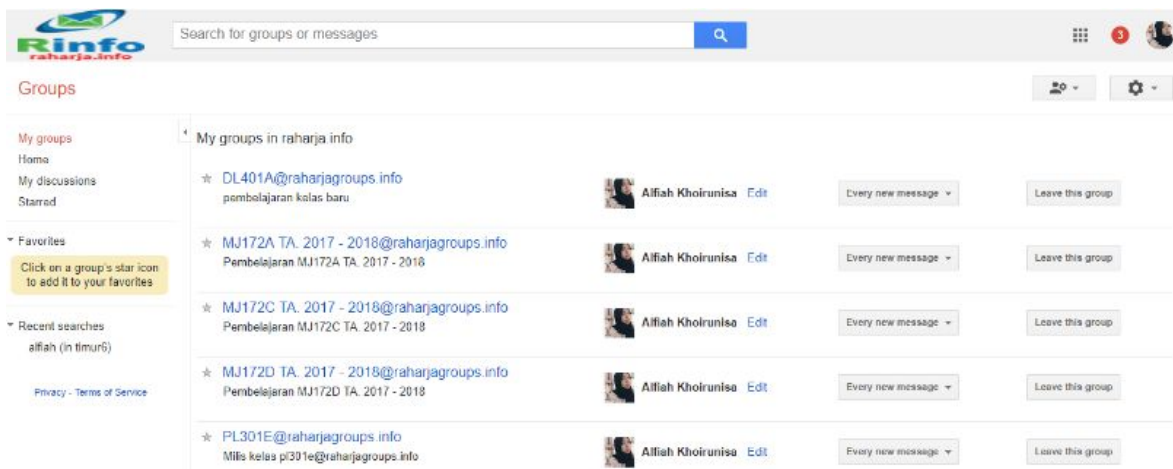
### 3.3 Implementation

Utilization of RinfoGroups is currently used as a forum for discussion or formal community (forum) in the iLearning class or for various discussion groups in the Raharja college, for example as a forum for discussion of Tim Timah 6. In addition to being a media discussion, RinfoGroups can be used to assess the active discussion of its members by looking at the activity report statistics provided by RinfoGroups.



**Figure 2.** Home Menu on Rinfogroups

Is the main / Home view on RinfoGroups. On the left side, there is the My Group, Home, My Discussion and Starred menu. On the right side, there is a photo of the user who is logged in and also below it is a Settings menu and menu to connect with other RinfoApps.



**Figure 3.** Menu My Groups

Is the display of the My Groups page. Where students who have logged in can see a list of groups where the student is a member. On this page, we can open a discussion group by clicking on the name of the group you want to open.

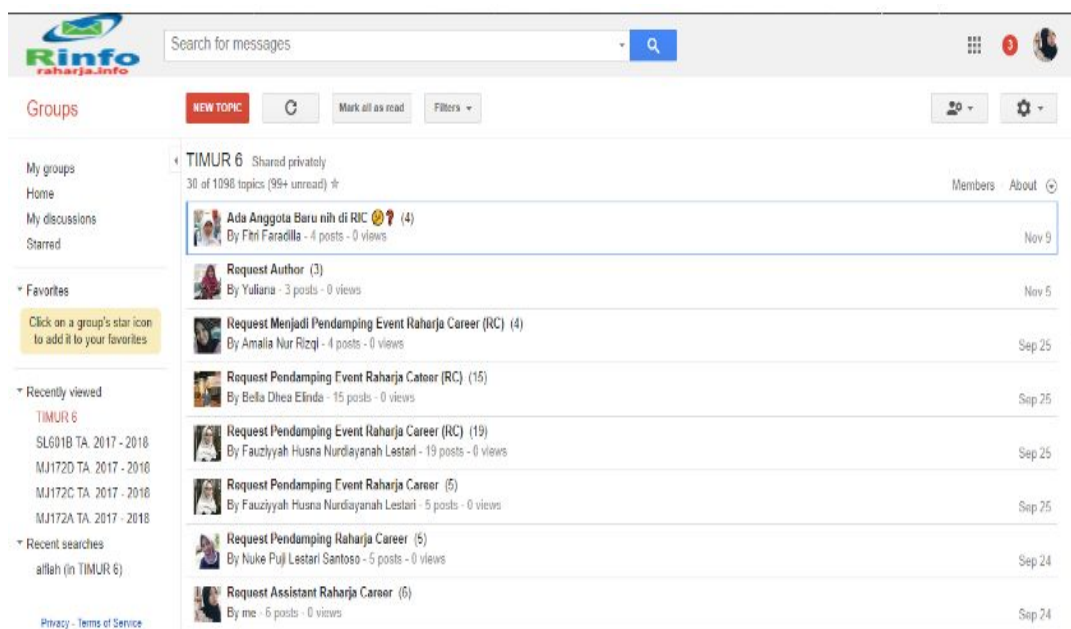


Figure 4. Milis Rinfo page

Is the main display of the discussion page on the Rinfo mailing list guided by TimUr 6. On this page, there is the name of the sender of the message and the subject of the message sent. On this discussion page, you can also see how many responses are received from messages that have been sent and also the date of sending the last response that can be seen on the right side of the discussion subject.

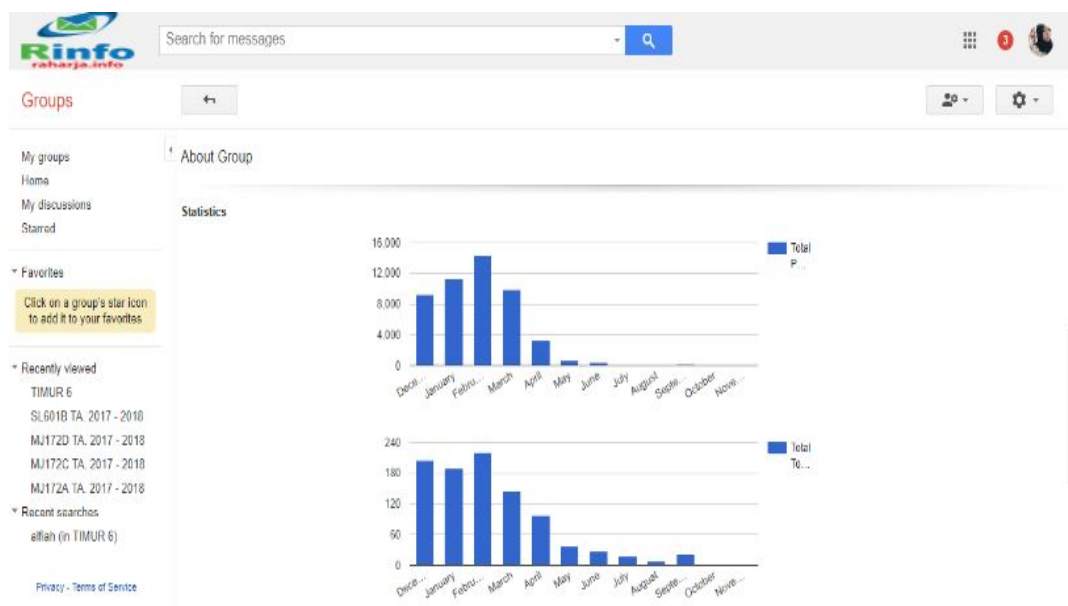


Figure 5. Rinfogroups statistics

It is a page display that can display the activeness statistics of members in a group mailing list. With the About Group menu, it can help lecturers to see the extent to which students are active in discussions because in the menu there are a number of posts/messages that have been sent which are separated into two menus: Most Active Poster Overall and Most Active Poster per month.

#### STATISTIC GRAPHICS

1. With this implementation, the process of discussing lecturer and student learning can be done online and can be done anywhere and anytime outside of lecture hours.
2. With this implementation students and lecturers no longer need to register to be able to become members of a discussion group, but only log in using Rinfo so they can already connect with the discussion group.
3. With this implementation facilitates lecturers in conveying information quickly and accurately, so that students can receive it quickly.
4. With this implementation, it allows lecturers to share about learning material stored in Google drives so that they can be downloaded by students in a class.

#### 4. Conclusions

At Raharja College, discussion activities between students and lecturers are still undeveloped because the discussion is still done directly or face-to-face so the discussion process of learning is not optimal because the discussion only takes place during the lecture. With the use of RinfoGroups, it is expected that the learning discussion process will be more effective and efficient where the discussion process can be accessed anytime and anywhere, making it easier for students to get the latest information about lectures. The use of RinfoGroups is expected to be a forum for formal discussion in the iLearning class so that it can improve the quality of information at Raharja Higher Education. The advantages that can be obtained by using RinfoGroups are Online, can be accessed anywhere and anytime, no need to register if you want to enter the discussion group, only need to have an Rinfo account, can connect with other RinfoApps, facilitate interaction between students and lecturers outside the hours acceptance and the latter makes it easier for lecturers to share lecture material.

#### 5. Suggestion

The use of RinfoGroups as an online discussion media has been implemented and can be a forum for formal discussions at the Raharja College. However, after analyzing the use of RinfoGroups there are still some disadvantages to this system. There are several things that can be used as suggestions from the author for the next development, namely, the presence of a use case diagram and also activity diagrams that can describe the process of running the system, starting from discussion group requests to students and lecturers can discuss only by opening an Rinfo email.

#### References

- [1] Aini, Q., Graha, Y. I., & Zuliana, S. R. (2017). Penerapan Absensi QRCode Mahasiswa Bimbingan Belajar pada Website berbasis Yii Framework. *Sisfotenika*, 7(2), 207-218.
- [2] Rahardja, U., Aini, Q., & Thalia, M. B. (2018). Penerapan Menu Konfirmasi Pembayaran Online Berbasis Yii pada Perguruan Tinggi. *Creative Information Technology Journal*, 4(3), 174-185.



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- [3] Rahardja, U., Harahap, E. P., & Pratiwi, D. I. (2018). Pemanfaatan RinfoSheet Sebagai Media Informasi Laporan Penjualan Barang pada Raharja Internet Cafe. *Jurnal Ilmiah Teknologi Informasi Asia*, 12(1), 65-74.
  - [4] Rahardja, U., Aini, Q., & Hardini, M. (2018). PENERAPAN SOFTWARE AKUNTANSI ONLINE SEBAGAI PENUNJANG PENCATATAN LAPORAN KEUANGAN. *SISFOTENIKA*, 8(2), 176-187.
  - [5] Sunarya, P. A., Nurhaeni, T., & Haris, H. (2017). Bank Reconciliation Process Efficiency Using Online Web Based Accounting System 2.0 in Companies. *Aptisi Transactions of Management (ATM)*, 1(2), 131-136.
  - [6] Rahardja, U., Harahap, E. P., & Dewi, S. R. (2019). The Strategy of Enhancing Article Citation and H-Index on SINTA to Improve Tertiary Reputation. *TELKOMNIKA (Telecommunication Computing Electronics and Control)*, 17(1).
  - [7] Rahardja, U. (2009, May). Artificial informatics. In *Industrial Electronics and Applications*, 2009. ICIEA 2009. 4th IEEE Conference on (pp. 3064-3067). IEEE.
  - [8] Aini, Q., Rahardja, U., Moeins, A., & Wardani, A. M. (2018). Penerapan Data Market Query (DMQ) pada Sistem Penilaian Berbasis Yii Framework. *InfoTekJar: Jurnal Nasional Informatika dan Teknologi Jaringan*, 3(1), 26-31.
  - [9] Martono, A. (2016). RANCANG-BANGUN APLIKASI SISTEM DISKUSI PEMBELAJARAN ON-LINE PADA PERGURUAN TINGGI. *CCIT Journal*, 9(2), 179-190.
  - [10] Putranto, A. (2012). Perancangan forum diskusi mobile online learning. *ComTech: Computer, Mathematics and Engineering Applications*, 3(2), 860-871.
  - [11] Desrianti, D. I., & Parmania, D. F. (2015). PEMANFAATAN TEKNOLOGI INFORMASI DAN KOMUNIKASI (TIK) PADA RHJFOX SEBAGAI FORUM DISKUSI. *CCIT Journal*, 8(3), 147-164.
  - [12] Febriyanto, E., & Yulianto, F. H. N. L. (2018). Penerapan Viewboard Rooster Berbasis Bootstrap Sebagai Penunjang Pelayanan iDuhelp! Pada Perguruan Tinggi. *Jurnal Ilmiah Teknologi Informasi Asia*, 12(2).
  - [13] Handayani, I., Kusumahati, H., & Badriah, A. N. (2017). Pemanfaatan Google Spreadsheet Sebagai Media Pembuatan Dashboard pada Official Site iFacility di Perguruan Tinggi. *Sisfotenika*, 7(2), 177-186.
  - [14] Rahardja, U., Aini, Q., & Putri, D. M. (2018). Pemanfaatan Automated Email System (AEMS) Sebagai Media Notifikasi Penilaian Hasil Belajar. *SENSITEK*, 1(1), 49-54.
  - [15] Aini, Q., Irwin, R. H., & Marjayanti, E. (2017). Notifikasi Pembelajaran iLearning Melalui Media Aplikasi iDu dengan Menggunakan E-mail Rinfo. *Technomedia Journal*, 1(2), 1-12.
  - [16] Rahardja, U., Aini, Q., Azizah, N., & Santoso, N. P. L. (2018). Efektivitas Akuntansi Online dalam Menunjang Proses Rekonsiliasi. *Nusantara Journal of Computers and its Applications*, 3(2).
  - [17] Filja, C., Fadli, M., & Yulina, S. (2016). Sistem Informasi Penilaian Partisipasi Mahasiswa dalam Berdiskusi Secara Online Menggunakan Metode Content Analysis. *Jurnal Aksara Komputer Terapan*, 5(1).
  - [18] Alwiyah, A., & Baihaki, A. (2012). Penerapan Sistem Informasi Akuntansi Berbasis Komputer Dalam Pengambilan Keputusan Guna Meningkatkan Efektifitas Pendapatan Pada Lembaga Penyiaran Publik Radio Republik Indonesia (Lpp Rri) Stasiun Sumenep. *AKRUAL: Jurnal Akuntansi*, 4(1), 1-18.
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- [19] Rahardja, U., Aini, Q., & Hardini, M. (2018). PENERAPAN SOFTWARE AKUNTANSI ONLINE SEBAGAI PENUNJANG PENCATATAN LAPORAN KEUANGAN. *SISFOTENIKA*, 8(2), 176-187.
- [20] Guritno, S., & Rahardja, U. (2011). *Theory and Application of IT Research: Metodologi Penelitian Teknologi Informasi*. Penerbit Andi.
- [21] Rahardja, U., Aini, Q., Ariessanti, H. D., & Khoirunisa, A. (2018). Pengaruh Gamifikasi pada iDu (iLearning Education) dalam Meningkatkan Motivasi Belajar Mahasiswa. *Nusantara Journal of Computers and its Applications*, 3(2).