



DIGITAL SKILL: OPTIMIZING THE UTILIZATION OF INFORMATION TECHNOLOGY BY PESANTREN UNIVERSITY IN ALUMNI TRACKING ACTIVITIES

Rila Setyaningsih¹, Abdullah², Edy Prihantoro³, Hustinawaty⁴

¹Department of Communication, Universitas Darussalam Gontor (rilasetya@unida.gontor.ac.id)

²Department of Communication, Universitas Darussalam Gontor (abdullah@unida.gontor.ac.id)

³Department of Communication, Universitas Gunadarma (edipri@staff.gunadarma.ac.id)

⁴Department of Information System, Universitas Gunadarma (hustina@staff.gunadarma.ac.id)

ABSTRACT. Digital skill is the ability to discover, evaluate, use, share and create content using digital devices. The implementation of alumni tracing based on website is a form of implementing digital skills in educational communication. This research was conducted to determine the implementation of a tracer study at Universitas Darussalam (UNIDA) Gontor as a boarding school-based university by optimizing information technology according to design standards and methodologies set by the Directorate General of Belmawa Ristekdikti RI. This study uses a qualitative case study approach because the researcher wants to dig deeper into the phenomenon of optimizing information technology in Pesantren in carrying out alumni tracking. Collecting data through interviews and observations with the manager of the tracer study at the university level and the person in charge of the tracer study of the study program. The data analysis technique was carried out based on the theory of Milles and Huberman which consisted of data reduction, data presentation and drawing conclusions. Source and method triangulation was used as a technique for measuring the validity of the data in this study. The results showed that the implementation of the tracer study at Darussalam Gontor University had optimized the use of information technology in the form of a google form. In addition, a website-based alumni tracking system is currently being developed. This study uses the Theory of Planned Behavior as a research framework. With regard to technology adoption, there are 3 things that are extracted from the research subjects, namely abilities, knowledge, and resources owned by the implementer of the UNIDA Gontor tracer study, 3) the resources have been well prepared for adjustment to the standards and methodology of the tracer study set by the Directorate General of Belmawa Ristekdikti. The recommendation given by the researcher is that there is a need to increase skills and knowledge for optimizing the use of a website-based alumni tracking system and providing appropriate resources.

KEYWORDS: digital skill; technology adoption; Pesantren; information systems

1 INTRODUCTION

The current need for public information cannot be prevented because now Indonesia is entering the era of information disclosure, this is supported by the existence of Law Number 14 of 2008 concerning Openness of Public Information (KIP). In the context of higher education relations with the wider community, the concept of information transparency is important, especially with regard to information on graduates and alumni. Consequently, universities must be able to provide complete data about their alumni. This is a form of higher education's responsibility to the community and stakeholders in producing alumni who are competitive and master science relevant to their field.

One of the efforts that can be made by universities in providing alumni and graduate data is by conducting tracer studies. With the vision of 'To be a Quality and Meaningful Pesantren University, as a Center for the Development of Science Oriented to the Islamization of Contemporary Science and as a Center for the Study of Al-Qur'an Language for the Welfare of Humanity' (Syarifuddin, 2020), UNIDA Gontor strives to implement healthy and quality management practices. In line with that,

every university is expected to have an alumni tracking system in the form of tracer studies, career centers and the like (Nugroho, Ernes Cahyo; Nugroho, 2018). With the tracer study, Darussalam Gontor University will have data on alumni and graduates for the benefit of improving the quality of higher education management.

Tracer study data can be a source of information for institutional development, evaluate the relevance of higher education, provide data for the accreditation process, and provide various information for stakeholders about UNIDA Gontor graduates. An important function of the existence of this tracer study is the feedback provided by alumni for the purpose of evaluating management achievements of the learning process carried out by universities and also as a means to exchange information about alumni, providing feedback for improving education graduates, mapping the dynamic job market from the point of view of the perspective of job seekers, planning curriculum development in accordance with the feedback provided by respondents, and carrying out activities to prepare students to enter the world of work.

The implementation of alumni tracing based on website is a form of implementing digital skills in educational communication. Digital skill is the ability to discover, evaluate, use, share and create content using digital devices.

Based on the initial documentation data, it is known that UNIDA Gontor has conducted alumni tracking which is carried out manually and separately in each faculty and study program. Starting in 2020 UNIDA Gontor established SADC (Student and Alumni Development Center) under the coordination of the Alumni and Cooperation Bureau which focuses on the development of students and alumni. If you find a career development center on non-Pesantren, this is not in line with Gontor's orientation, namely science, worship and tholabul ilm. Thus, the existence of a career development center became a point of difference with other agencies so that the Student and Alumni Development Center UNIDA Gontor was formed. SADC has two objectives, first, for the purposes of forms, accreditation, and data documentation purposes. The second objective is to find out the condition of alumni as material for evaluating study programs, faculties and even universities. So SADC can work together with all parties in the UNIDA Gontor environment such as Qur'an markers, Islamization and so on for training or softskill development (Huringin, 2020). The task of SADC is to track alumni 2-3 years after graduating from Darussalam Gontor University.

The implementation of tracer studies at Darussalam Gontor University until 2020 has not been carried out according to the design standards and tracer study methodology set by the Directorate General of Belmawa Ristedikti (Directorate General of Research and Student Affairs Research and Higher Education Technology). Before 2020, the implementation of the tracer study at UNIDA Gontor did not meet the design standards, methodology, and tracer study questionnaire set by the Directorate General of Belmawa Ristekdikti.

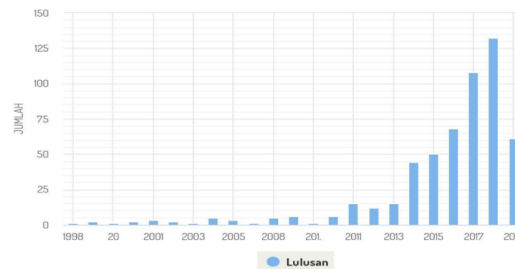
The tracer study at UNIDA Gontor has not been carried out at the tertiary level, the target population of the tracer study has not met the standard, which is two years after graduation, besides that the implementation methodology and questionnaires also do not have standardization. Each study program has a different questionnaire, implementation methodology and even standardization of the target population of the tracer study. Like the tracer study in the Agrotechnology study program which was conducted in 2019 to track alumni of 2018 graduates. In 2018, graduates should have tracked alumni in 2020, which is 2 years after graduation.

Starting in 2020, SADC seeks to conduct tracer studies in accordance with standardized designs, methodologies, and questionnaires even though the implementation is still using the google form. This effort is carried out as an effort to carry out a standardized tracer study. This is in accordance with Circular No. 313/B/SE/2016 regarding the implementation of tracer studies at the tertiary level, there are several provisions set by the Directorate General of Belmawa Ristekdikti regarding career centers and tracer studies, namely: 1) tracer studies are carried out at the tertiary level to ensure that the design, methodology, and questionnaires which is used is standardized so as to allow compilation and comparison of data between faculties/study programs in universities at the national level, 2) tracer studies carried out by universities refer to the design standards and methodology of the Directorate General of Research and Technology, which must be targeted at the entire population and not at a pre-selected sample group, the target population in the implementation of the current year tracer study are all alumni who are members of two graduates. the previous year.

This is to ensure the standardization of instruments for the purposes of compilation and comparison of national data (Bakti, Noval, & Aji, 2017).

As a university that is decades old, Darussalam Gontor University already has many alumni. The number of alumni of Darussalam Gontor University from 2014 – 2019 is shown in graph 1.

Graph 1. Number of Alumni of UNIDA Gontor



On the other hand, the development of information and communication technology requires universities to make various adjustments, including the implementation of alumni tracking. The increasing number of alumni from year to year becomes a challenge as well as an impetus for UNIDA Gontor to carry out alumni tracking by utilizing information technology.

Many studies on the use of information technology in public communication activities have been carried out, including the research of Priyatna, Prastowo, and Syuderakat (2020) with the title 'Optimization of Information Technology by Government Institutions in Public Communication Activities'. This research uses a mix method approach. The results of the study indicate that the majority of respondents consisting of public relations personnel of Ministries, Institutions and Offices of Communication and Informatics at the provincial level have managed public communication by optimizing communication technology in the form of distributing single narratives and government priority programs through online media and social media as well as monitoring and auditing communication media. as a form of controlling and evaluation. Besides that, (Priyatna, Prastowo, Syuderajat, & Sani, 2020) the difference between this study and the research of Priyatna, Prastowo, and Syuderajat (2020) is in the theory, research methods, focus and research locus.

The researcher uses a technology adoption theory approach in the form of Theory of Planned Behavior (TPB) as a framework in analyzing research data. TPB is an extension of TRA, with the addition of perceived behavioral control variables-besides subjective behavior and norms, to explain situations where individuals do not have control over their desired behavior (Ajzen, 1991, as quoted by Chau and Hu (2001: 53). Research on technology adoption has used TRA and TPB as theoretical models, but TRA is more commonly used. Chau and Hu (2001: 53) combine TPB with TAM. The control variable is measured by 3 indicators, namely ability, knowledge, and available resources. Theory of Planned Behavior as shown in Figure 1.

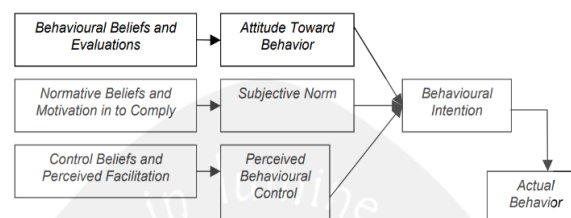


Figure 1. Chart Theory of Planed Behavior

Technology utilization relates to the behavior of using the technology to complete tasks. The theory of attitudes and behavior (theory of attitudes and behavior) developed by Triandis (1980) as quoted by Wijaya (2005:39) states that the use of personal computers / PCs by users who have knowledge in an environment that can choose is influenced by their affection for the use of personal computers. PC, social norms in the workplace that use PCs, habits related to computer use, expected individual consequences of using PCs and conditions that facilitate the use of PCs in a conducive environment.

2 RESEARCH METHODS

Research on optimizing information technology in tracking alumni is important to support the policy of the Directorate General of Learning and Students (Ditjen Belmawa) Research and Technology of Higher Education of the Republic of Indonesia regarding the implementation of tracer studies. This type of research is qualitative with the type of case study. Researchers chose this type of case study because they wanted to dig deeper into the phenomenon of optimizing information technology in Pesantren in carrying out alumni tracking. Data collection in this study was done through observation, interviews and documentation. In-depth interviews were conducted with the tracer study managers at UNIDA Gontor, in this case the SADC (Student and Alumni Development Center) Section. Interviews were also conducted with the person in charge of the tracer study from each study program. Observations were made by observing the tracer study implementation activities in 2020 and 2021. Documentation was used to collect various written references and data about the research focus.

After collecting data, the researcher constructed the messages obtained and mapped out the optimization of information technology in the implementation of the tracer study at UNIDA Gontor. The data collected from observations, interviews and documentation were analyzed based on Miles and Huberman's data analysis theory with the stages of reduction, data display, and conclusions according to the researcher's interpretation (Tamin, 2011). Researchers choose triangulation of sources and methods to measure the validity of research data. Triangulation is a way to get really valid data by using multiple methods (Bachri, 2010). Source triangulation is extracting information from several informants while method triangulation is a data collection technique by combining several data collection methods, namely in-depth interviews (in-dept interviews), observation and documentation. In-depth interviews were conducted with the tracer study managers at UNIDA Gontor, which consisted of SADC managers and those in charge of tracking alumni from each study program at UNIDA Gontor. Observations were made through observing alumni tracking activities that were carried out in 2020 and 2021. This was because starting in 2020 the implementation of tracer studies at UNIDA Gontor began to be adjusted to the standards and methodology of the tracer study of the Directorate General of Belmawa Ristekdikti.

3 RESULTS AND DISCUSSION

The purpose of this study was to analyze the optimization of the use of information technology in the implementation of a tracer study at UNIDA Gontor as a boarding school. To find out the optimization of the use of technology in tracking alumni, researchers will study based on the theory of technology adoption The Theory of Planned Behavior (TPB) which consists of 3 indicators, namely ability, knowledge, and resources. Explanation of each indicator as shown in table 1.

Table 1. Explanation of Indicators

No.	Indicator	Description
1.	Ability	The capacity to perform various tasks in a job. In the context of this research, it is in the form of capacity/habits in using computers and related software for alumni tracking activities.
2.	Knowledge	Various symptoms are encountered and obtained through the observation of reason. In the context of this research, it is in the form of information related to the implementation of alumni tracking including policies and standards that become references.
3.	Resource	Relating to 5 things, namely Man (human resources/implementer), Money (capital/budget), Materials (material/content), Machine (machine), and Method (method/procedure).

Source: Prepared by researchers, 2021

First indicator is the ability, this is related to the capacity in the use of existing information technology. The tracer study at Darussalam Gontor University is carried out through the google form. This is because a website-based information system designed for tracer studies is still under development. In planning the tracer study in 2020, SADC has carried out various communication processes both to the leadership and person in charge of the tracer study of each study program to

equalize perceptions regarding the implementation of the tracer study, including the use of information technology, although the results have not been maximized.

In carrying out the tracer study at Darussalam Gontor University, messages in the form of questions were conveyed to alumni via google form, the questionnaire was prepared according to the standards of the Directorate General of Learning and Student Affairs of the Republic of Indonesia. The questions compiled for alumni tracking are adjusted to existing standards, namely according to the Dikti Circular No. 313/B/SE/2016 concerning tracer studies. The tracer study questions relate to the suitability of the graduate's field of work, the waiting period for graduates, and various things about graduates. All questions were collected in the form of a questionnaire uploaded on the google form.

In line with previous research, the question data was collected in the form of a questionnaire, although the method of spreading the message used was different. In the tracer study of the Islamic Banking Department, Faculty of Economics and Sharia Business IAIN Walisongo, the required data was collected using a questionnaire that was sent directly to the addresses of graduates and graduate users. Graduate addresses are tracked by looking for information to the list of alumni addresses filled out at graduation. The methods used are online and offline. Alumni whose email addresses can be tracked will be sent a questionnaire via email (online), and confirmed by phone or short message service. For the offline method, alumni who come directly are asked to fill out, or visit the alumni's workplace directly (Arifin, 2015).

The results of this study are slightly different from the research on STMIK AMIKOM Purwokerto which compiled a tracer study by designing an online tracer study system. From the results of the design and manufacture of the online tracer study system, it can be concluded that a.) The system can be used to manage the results of tracer studies conducted online properly because the data is centralized on one server and can be searched at any time if needed. b.) The system can make it easier for alumni to provide information about the alumni concerned so that the data then becomes very valuable data to determine the policies that will be taken by management in order to improve the quality of graduates (Karyono & Hermanto, 2013).

The tracking of alumni at Darussalam Gontor University has utilized information technology, although it has not been carried out optimally. Utilization is still limited to the use of google forms. The website-based information system is still in the process of being developed to be used in the tracer study cycle in 2021 and the following years.

Second indicator in the form of knowledge, is a collection of information related to alumni tracking including policies and standards that become references. The implementation of tracer studies at Darussalam Gontor University is carried out manually and separately in each faculty and study program. Prior to 2020, the implementation of tracer studies at Universitas Darussalam Gontor was not in accordance with the design standards, methodology, and tracer study questionnaires set by the Directorate General of Learning and Student Affairs of the Republic of Indonesia. The tracer study at the University of Darussalam Gontor has not been carried out at the tertiary level, the target population of the tracer study has not met the standard, which is two years after graduation, in addition to the implementation methodology and the questionnaire used has not been standardized. Each study program has a different questionnaire, implementation methodology and even the determination of the target population for the tracer study.

Starting in 2020, Darussalam Gontor University established the SADC (Student and Alumni Development Center) under the coordination of the Alumni, Cooperation and International Affairs Bureau (BKAUI) which focuses on the development of students and alumni. SADC strives to conduct tracer studies in accordance with design standards, methodologies, and questionnaires, although in practice it still uses the google form. This effort was made to standardize the implementation of tracer studies. This is in accordance with the Circular Letter of the Directorate General of Learning and Student Affairs of the Republic of Indonesia Number 313/B/SE/2016 concerning the implementation of tracer studies at the university level. This needs to be done to ensure standardization of instruments for the purposes of compilation and comparison of national data.

Based on the research data, it is also known that the background of the implementation of the tracer study at the tertiary level at the University of Darussalam Gontor is due to the need for adjustments. Questionnaires, populations and tracer studies that do not meet the standards need to be adjusted. In addition, tracer studies carried out by universities refer to the design standards and

methodology of the Directorate General of Learning and Student Affairs of the Republic of Indonesia, which must target the entire population and not a pre-selected sample group. The tracer study population is a graduate of the previous two years.

Due to the website-based tracer study system at Darussalam Gontor University which is not ready to be used, the 2020 tracer study will be carried out through the google form. The google form link is shared by the person in charge of the tracer study of each study program to the alumni population (2 years after graduation) via whatsapp group or email.

The determination of the target population is based on the rules set by the Directorate General of Belmawa Ristekdikti RI. It is important to carry out tracer studies to find out the position of alumni after they graduate, their absorption in the world of work, how long the waiting period is to get their first job, as well as various matters related to the suitability of the field of science with the work they are doing.

This finding is in line with previous research which stated that tracer study in every university is very important because by conducting a tracer study or alumni tracing, the campus can find out what graduates are doing and know whether the knowledge learned in lectures is used in lectures in the outside world by students. after graduating from university (Saleh & Safriadi, 2012).

Third indicator are resources, this relates to man (human resources/executors), money (capital/budget), materials (materials/contents), machines (machines), and methods (methods/procedures). The first supporting factor for tracer study at Darussalam Gontor University is man, in the form of a person in charge of tracer study in each study program which makes it easier for SADC to track alumni. This is because the study program has more intense contact with its alumni than SADC. Obstacles in the form of loss of alumni contacts become problems that arise so that the tracer study process is not optimal. Another inhibiting factor is the unprepared website-based tracer study system that has been designed. The web has facilitated and provided convenience to the needs of users in accessing the internet through mobile devices.

Regarding the budget (money), the implementation of the tracer study at Darussalam Gontor University is not an obstacle. The university has provided support in the form of an adequate budget to carry out tracer studies through budgeting the RKAT (Annual Activity Plan and Budget) which is prepared every year. The budget provided starts from the process of preparing the questionnaire, distributing it, analyzing the results, to the dissemination and evaluation of its implementation. The use of the budget is reported in an accountable and transparent manner.

The next resource is in the form of materials, namely the content of the tracer study questionnaire. The tracer study questionnaire questions are prepared according to the standards set by the Directorate General of Belmawa Ristekdikti RI with the addition of several questions according to the characteristics of each study program and at the university level. This is because UNIDA Gontor is a pesantren-based university so that some additional information is needed.

Tracer study also become material for quality improvement. This is in accordance with the results of previous studies which stated that tracer studies are useful for knowing how graduates perform in the industrial world. Tracer study has another important role, namely providing important information for higher education development, improving the quality of study programs, student satisfaction with study programs, as a tool to evaluate the relevance of higher education to the world of work, can provide useful input for lecturers and administrators to improve performance, as well as input for parents in monitoring their children's education (Istiningtyas & Lukmawati, 2019).

In addition, this finding is also in line with the findings of previous studies which stated that the main purpose of tracer study activities is to determine or identify the quality of graduates in the world of work, while the specific objectives of tracer studies are: to identify competencies and skills. graduate profile; know the relevance of the curriculum application that has been applied in tertiary institutions with the needs of the job market and professional development in the competence of the department; to evaluate the relationship of curriculum and study in the department as a scientific development, as a contribution to the accreditation process of study programs (Hilendria, Junaidi, Effendi, & Astuti, 18AD). Regarding the machine in the context of this research, it is the technology used in the implementation of the tracer study. As explained in the previous section, the implementation of the tracer study at Darussalam Gontor University is carried out online using a google form. Currently, a website-based tracer study information system is being developed that is integrated with the career center system.

Web technology has made it easier and easier for users to access the internet through mobile devices, previously web media users could only be used via computers, so that with mobile web technology, a web can be accessed via mobile devices. the web display will adjust to the device that the user will use. The last resource is in the form of methods, this is related to the methods and procedures for implementing the tracer study. Several stages of the tracer study implementation at UNIDA Gontor can be seen in Figure 2.



Figure 2. Procedure for the Implementation of the Tracer Study at UNIDA Gontor

Adjustment steps are carried out based on the design standards and tracer study methodology set by the Directorate General of Learning and Student Affairs of the Republic of Indonesia. Communication planning in designing alumni tracking is carried out together with university leaders and the person in charge of the study tracer of each study program. In the action step, the implementation of the tracer study was carried out by distributing questionnaires through the google form. Evaluation activities have been carried out internally at SADC, but the socialization of the results of the 2020 tracer study has not been conveyed to each study program in detail.

REFERENCES

- Arifin, J. (2015). TRACER STUDY ALUMNI JURUSAN PERBANKAN SYARIAH FAKULTAS EKONOMI DAN BISNIS ISLAM IAIN WALISONGO SEMARANG. *Economica: Jurnal Ekonomi Islam*. <https://doi.org/10.21580/economica.2015.6.2.796>
- Bachri, B. S. (2010). Meyakinkan Validitas Data Melalui Triangulasi Pada Penelitian Kualitatif. *Jurnal Teknologi Pendidikan*, 10(1), 46–62.
- Hilendria, B. A., Junaidi, L. T., Effendi, L., & Astuti, W. (18AD). EKSISTENSI DAN PERAN ALUMNI DALAM MENJAGA KUALITAS MUTU JURUSAN AKUNTANSI FAKULTAS EKONOMI DAN BISNIS UNIVERSITAS MATARAM. *Jurnal Riset Akuntansi Aksioma*, 2(2019).
- Huringin, N. (2020). Tracer Studi UNIDA Gontor bukan hanya sekedar kepentingan Borang Akreditasi. Retrieved from Program Studi Aqidah Filsafat islam website: <http://afi.unida.gontor.ac.id/2020/03/22/tracer-studi-unida-gontor-bukan-hanya-sekedar-kepentingan-borang-akreditasi/>
- Istiningtyas, L., & Lukmawati, L. (2019). Tracer study of the psychology faculty of UIN Raden Fatah Palembang in 2018: satisfaction of alumni and stakeholders on the implementation of Islamic psychology study programs. *Jurnal Konseling Dan Pendidikan*, 7(1).
- Karyono, G., & Hermanto, N. (2013). Rancang Bangun Sistem Tracer Study Online pada STMIK AMIKOM PURWOKERTO. *Semantik*.
- Nugroho, Ernes Cahyo; Nugroho, I. (2018). Sistem Pusat Karir Dan Tracer Study Perguruan Tinggi. *Indonesian Journal on Networking and Security*, 7(1), 1–5.

- Priyatna, C. C., Prastowo, F. . A. A., Syuderajat, F., & Sani, A. (2020). Optimalisasi teknologi informasi oleh lembaga pemerintah dalam aktivitas komunikasi publik. *Jurnal Kajian Komunikasi*, 8(1), 114–127.
- Saleh, M., & Safriadi, N. (2012). Tracer Study Alumni Fakultas Teknik Universitas Tanjungpura Dengan Sistem Informasi Berbasis Web. *Elkha: Jurnal Teknik Elektro Universitas Tanjungpura*, 4(1).
- Syarifuddin, S. M. *Panduan Universitas Darussalam Gontor.* , (2020).
- Tamin, I. H. (2011). Peran Filantropi dalam Pengentasan Kemiskinan di dalam Komunitas Lokal. *Jurnal Sosiologi Islam*, 1(1), 35–58.