

ANALYSIS OF ABILITY DIGITAL LITERACY FOR LIBRARIANS AT SURABAYA STATE UNIVERSITY LIBRARY

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ABSTRACT

Development technology very rapid information has change face library become center service digital information. Librarian No Again only on duty in service physical , but also required For own ability digital literacy which includes access , evaluation , creation , reflection , and participation information in a way critical and ethical research This done For know to what extent is the ability digital literacy of librarians at the UPT Library of Surabaya State University (UNESA), with use five element theory digital literacy from Renee Hobbs (2010), namely access, analyze, create, reflect, and act. Research This use approach qualitative descriptive. Data collection techniques are carried out through interview deep against five librarians from various field services, namely collection work scientific, references and publications periodically, two of circulation, as well as automation and conservation.

Data analysis was performed using the Miles, Huberman, and Saldaña model which includes stage data reduction, data presentation, and data extraction conclusion. Research results show that ability librarian in access and analyze aspects are in the category good, but the ability in the aspects of create, reflect, and act is still diverse and yet evenly. Some librarian Not yet active make digital content, not yet in a way consistent reflect mark ethical in management information, and minimal involvement in public digital spaces. It is necessary training digital literacy in general comprehensive, collaborative between divisions, as well as support policy institutional so that librarians can play a role as agent digital literacy in environment academic.

Keywords: *digital literacy, librarian, library academic , digital media, UNESA Library Unit.*

INTRODUCTION

Development technology information and communication has push Lots change in various aspect life , including in the process of searching , obtaining and distributing information . Changes This the more significant with the presence of the internet as the main media in get information in a way fast , easy , and no limited space and time . Data from Datareportal (2022) shows that 62.5% of the world's population has connected with the internet. The number This Keep going increase along with development digital infrastructure and increasing use device internet based in life daily .

The Internet has bring impact big in make things easier access information , but also become challenge new Because distribution very fast and extensive information often No accompanied by with the verification and selection process . Distribution information that is not Can dammed This appear as consequence from *the* presence of new media that integrates various text , image , audio and video media forms and create public with easy

access or produce information . Conditions This bring up problem Serious like flood information (*information overload*), hoaxes , disinformation , and confusion in select and use source valid information .

Change environment information This participate influence development draft literacy . If previously literacy understood as ability base reading and writing , then in digital context , literacy develop become more capabilities complex . UNESCO (2011) defines literacy as knowledge and awareness to need information , as well as ability For identify , evaluate , organize , use , and communicate information in a way effective For solve problem . With the emergence of new media , the concept of literacy information evolve become literacy digitala form literacy that includes understanding and skills in facing media -based digital technology .

Digital literacy becomes competence essential things that must be done owned by the community , including professionals information like librarian . Digital literacy helps somebody in choose credible information , understanding context messages , and participate active and ethical in the digital space . In Lestari and Afifah's (2021) research , it was stated that digital literacy can minimize risk error information , improve efficiency search information , as well as strengthen capacity critical users towards digital media. Therefore that , in the middle the rise problem information , digital literacy is an important capital for every individuals , especially for librarian as managers and providers information in the environment academic .

Librarian college tall own role strategic in support the education and research process . They do not only on duty guard collection and help search source information , but also plays a role as facilitator , companion academics and educators digital literacy . According to Hobbs (2010), digital literacy includes five competencies main : *access* (accessing information), *analyze* (analyze and evaluate) information), *create* (create digital content), *reflect* (do reflection ethical), and *act* (act and participate in the space digital public). Fifth element This reflect competence comprehensive as needed librarians in the digital age.

Post COVID-19 pandemic , transformation service library going digital acceleration . Many services conventional nowadays shift to online platforms, such as virtual reference , institutional repository services , and dissemination content through social media . Changes This demand librarian For No only control technology , but also has skills digital literacy in general comprehensive to be able to give relevant and adaptive services to need community academics .

A number of study show that librarians in various institutions college tall Still face challenge in mastery digital literacy in general comprehensive . A study by Siregar and Fitriani (2020) in one of the college high in Sumatra stated that librarian tend strong in aspect *access* and *analyze* , but Still low in *create* and *act* . Meanwhile that , research by Pratiwi and Mahendra (2022) emphasized that ability reflection ethical (*reflect*) often neglected in practice digital services librarians , even though role this is very important For guard integrity information in the environment academic . besides that , in context education high in Indonesia which encourages implementation of Independent Campus Learning (MBKM), librarian sued For become partners active and innovative learning , which of course need adequate digital skills . Digital literacy becomes supplies it is important that librarians can operate role new as supporters learning independent and collaborative based technology

In the environment of Surabaya State University (UNESA), IsDB Library is the implementing unit technical library has provide various digital facilities , such as OPAC, institutional repositories , e-journals, and information service based on social media . The

existence of facility This Of course demand librarian For own ability digital literacy that is not only technical , but also critical , creative , and ethical . Librarian must capable accompany users in access digital resources , help evaluation information , as well as manage and distribute content service with appropriate approach development technology and needs community academics .

However , until moment This Not yet Lots research that is specific highlight to what extent is the ability digital literacy of librarians at IsDB Library UNESA, especially with five- element approach digital literacy from Renee Hobbs. This reinforced by research conducted by Siregar and Fitriani (2020) which stated that study about digital literacy librarian Still nature common and not yet Lots discuss in a way deep ability digital literacy of librarians at the level institutions certain , such as library college high . Therefore that , research This important done as form evaluation beginning to readiness librarian in face challenges of the digital information age . Research this will also give contribution in designing development programs competence librarian , okay through training , improvement capacity individuals , as well as strengthening internal policy based digital literacy .

With dig and analyze ability librarian based on fifth element digital literacy , research This expected capable give description intact about roles and challenges librarian in the digital era, as well as compile concrete recommendations For increase quality service library within the Surabaya State University environment . The purpose of research that is wanted achieved is : (1) For knowing and analyzing ability librarian in access , analyze , and create relevant and effective digital information in support service libraries in the digital era. (2) For explore and understand reflection ethical librarian in use of digital media as well level participation they in academic digital communities , as well as How they play a role in guard ethics and professionalism in the digital world.

LITERATURE REVIEW

When composing research , writer need research predecessors who have relatedness or relevance theme with research that will be conducted . Research previously taken into account in frame give reference moment analyze or study research that will be done Because can made into as comparator to the results that have been There is previously (Sugiyono , 2018). Below This is study the previous one that became references and references writer in do research . (1) Daryono (2017) in his research entitled " Literacy " Digital Information : A Challenges for Librarians ” emphasizes importance digital literacy for librarians in the information age . Research This use approach studies library and conclude that librarian must capable adapt with technology information to remain relevant with need modern users .

Digital literacy is considered as skills mandatory basis owned by librarians , especially in serve public academic . (2) Royani and Rahayu (2022) in the article entitled "The Role of Librarian Digital Literacy in Support Institutional Repository Quality Higher Education ” studies How digital literacy librarian influence quality campus repository management . Research results show that librarian who has understanding deep about digital literacy can validate work scientific with more good and improving visibility as well as repository usability . (3) Putri and Sembiring (2021) through research " Evaluation Digital Literacy for Librarians in Libraries State Universities in Central Java” found that part big librarian has control aspect access and evaluation digital information , but Still weak in aspects creation digital content and participation active on social media academic . Research

This use method survey quantitative against 35 librarians and emphasized importance training sustainable . (4) Siregar and Fitriani (2020) in his research entitled " Librarian Digital Literacy " Higher Education in Support Student Academic Activities " states that digital literacy is not only impact on increasing services , but also have an impact to motivation Study students . Research This use approach qualitative with interview deep to librarians and users library . (5) Zahra and Yuliani (2023) conducted study with title "The Role of Librarians" As a Digital Literacy Agent in the Campus Environment ". Research This highlight importance librarian play a role as facilitator digital literacy in activity academic . Research results recommend existence collaboration between library and study programs For expand role educative librarian .

With existence study previously said , research This try fill in gap that has not been Lots explored , namely analysis ability digital literacy librarian based on five element theory digital literacy from Renee Hobbs (2010) in the UPT Library environment of Surabaya State University (UNESA). Research this also strengthens urgency improvement digital literacy librarian as foundation important in strengthening service information academic.

RESEARCH METHOD

Study This use approach qualitative with type study descriptive approach This chosen Because allows researchers For dig information in a way deep about ability Digital literacy of librarians at the Library of Surabaya State University (UNESA). Research descriptive qualitative aim For understand phenomenon based on view the subject under study , so it is very suitable For examine processes, experiences , and understanding librarian in access , evaluate , create , reflect , and disseminate digital information based on theory digital literacy from Renee Hobbs (2010). In research qualitative , tools or instrument main in the data collection process is with method writer observing , asking , listening , requesting and taking research data (Sugiyono , 2018). Author play a role as non- participant observer , where writer act as observer and not involving self in a way direct in life object study about ability digital literacy Librarian of Surabaya State University (UNESA).

Study This conducted at the Technical Implementation Unit (UPT) of the Surabaya State University (UNESA) Library , located at the IsDB Library, Surabaya State University (UNESA) Jln Rectorate , Lidah Village Wetan , District Lakarsantri , Surabaya City, East Java 60213. Election location This based on considerations that the UNESA Library UPT is institutions education height that has been provide various service digital information and have librarian with diverse not quite enough answer service . Research implemented during month April until June 2025. Research This using 2 types data sources , namely primary data and secondary data , for get information that can supporting data and facts on location research . The following explanation about types data sources in study This includes : (1) Primary data sources (2) Secondary data sources

Data analysis techniques used in study This is analysis qualitative proposed by Miles et al. (2014) with steps that is data reduction , data presentation , and data extraction conclusion . (1) Reduction Data: Stage data reduction that has been done in study This includes : recapitulation results interview with resource person , recapitulation results observation and documentation , as well as notes related fields with research . Stage This done For election relevant or whether or not the data is objective end research . (2) Presentation of Data After do data reduction , then step furthermore that is do data

presentation . Author presenting data in the form of text , images / photos . But in data presentation , the data is described more Lots text that is narrative .

Data presentations in the form of a group organized information in a way systematic and easy understood . (3) Drawing and Verifying Conclusions: Drawing conclusion is stage end in data analysis conducted . In the research this , the author see results fixed data reduction referring to the formulation problem in a way the intended goal achieved . The data that has been arranged compared to between One with others to withdrawn conclusion as answer from existing problems Triangulation used in study This is triangulation sources and triangulation method . (1) Triangulation Sources In research this , the author look for truth information information through data checking from various data sources such as studies documentation , results more interviews from One subject to have corner different views , and results observation . (2) Triangulation Method. Triangulation method used For obtain data regarding digital literacy librarian college high in the IsDB Library of Surabaya State University (UNESA). Triangulation method in study This use observation with method compare it with results interviews that have been obtained as primary data .

RESULTS AND DISCUSSION

Review library is part important in research that includes theories , concepts , and results study relevant and supporting previous focus research . In the section this , researcher to describe base the theory that became runway analysis , as well as examine results studies previously had relatedness with topic digital literacy and its role librarians in the digital era. Overview library arranged For strengthen framework thinking as well as clarify position and contribution study .

A. Digital Literacy

The term literacy was originally has a narrow meaning , namely just ability reading and writing letters. However , as time goes by developments over time and progress technology information , meaning literacy experience expansion become various form other literacy that is more complex , such as literacy numeracy , literacy science , literacy financial , literacy culture , literacy citizenship , and which becomes focus in study This is digital literacy. Digital literacy is integrating capabilities aspect technological , cognitive , social , and ethical in access and manage information digital -based . According to Gilster (in Suwarto , 2015), digital literacy does not only about ability read digital information , but also includes the thinking process critical in evaluate information obtained from digital media. In a broader context broadly , digital literacy is ability For discover , evaluate , utilize , create , and communicate information through digital media effective and responsible answer .

UNESCO (2011) defines digital literacy as ability For use technology information and communication (ICT) to find , evaluate , utilize , create , and communicate information with blend aspect cognitive , ethical , social , and technical technology . Digital literacy is not only emphasize skills technical in use digital devices , but also on the development awareness ethical in spread information as well as skills think critical in filter valid and useful information. Development digital literacy is closely related relation with evolution of two concepts important previously , namely literacy computers and literacy information . Literacy computer appear when computer micro start used in a way broad , both in the field of business and life everyday . Meanwhile that , literacy information start develop rapidly in

the 1990s, when information become more easy compiled , accessed , and disseminated through internet network . Digital literacy was born from combination and expansion of two literacies the as response to challenge information 21st century .

In practice , digital literacy becomes need base modern society , especially in the middle increasing current digital information that is not always valid or can trusted . According to Paul Gilster (1997), the ability digital literacy includes understanding context , interpretation , and reflection to information consumed . This is become important Because modern society does not only become consumer information , but also producers and disseminators digital information through social media , online forums, blogs, and other digital platforms . In addition , the phenomenon like flood information (*information overload*), disinformation , hoaxes , and digital algorithms that strengthen information bias (*filter bubbles*) become challenge Serious for digital society . Digital literacy is present as tool For help individual navigate environment complex information mentioned . This is where importance integration digital literacy to in all aspect life , including education , profession , and services public .

Digital literacy is increasing get highlight important during the COVID-19 pandemic . Activities study , work , and search information switch to online realm , which demands all people included librarian for capable adapt with technology and digital media. Librarian as managers and facilitators information in the environment academic , required For No only awake technology , but also capable guide community academics in use digital information in effective and ethical. In context librarian , digital literacy becomes skills essential . Librarian sued capable access and navigate source digital information such as OPAC, institutional repositories , e-journals, and social media library . They are also expected can evaluate information , accompanying student in search source scientifically valid, and create contents educational support literacy information public campus . Therefore that , mastery digital literacy is foundation main in development service adaptive library towards the digital era.

Research by Nasution & Zulkarnain (2022) confirms that level digital literacy librarian own correlation positive to quality digital library services. High digital literacy allows librarian give more services fast, accurate, and needs - oriented users. On the other hand, the low digital literacy causes limitations in utilise technology, stagnation services, and lack of innovation in presentation information. With Thus , understanding about digital literacy becomes crucial , good in a way conceptual and practical , for study How librarian as agent literacy in the environment academic capable operate his role in ecosystem continuous digital information changed . This is one of the things that runway important in study .

A.1. Elemen Digital Literacy

Element important in digital literacy is concerning the ability that must be mastered in utilization technology information and communication . Elements This digital literacy will used For give education digital literacy to many people. There are several opinion expert about element in digital literacy . according to theory Digital Literacy According to Renee Hobbs (2010) that digital literacy is a set competencies that enable somebody For access , analyze , create , reflect , and act in digital environment , with awareness to impact social , cultural , and ethical from information used and disseminated . Renee Hobbs formulated five elements main in digital literacy , namely :

A.1.1. Access (Accessing) Digital Information)

Element First from digital literacy is *access* , namely ability For access information in

a way effective use digital devices and technologies . This includes skills technical base like operate computer , device software , machine searchers , until system information library such as OPAC and digital repositories. In the context of librarian , element covers ability For :

- a) Direct librarian in search information through online catalog .
- b) Explain method access journal electronic and e-resources institutions .
- c) Ensure digital systems can accessible in a way stable by users .

Hobbs emphasized that access No just question affordability technology , but also about ability For use it in a way strategic For get relevant information .

A.1.2 . Analyze (Analyze) Digital Information)

Element second is *analyze* , which refers to the ability For assess , evaluate , and analyze content digital information in critical . This includes ability For recognize credibility sources , objectivity content , as well as data accuracy . Librarian need For own ability in :

- a) Differentiate sources that can trusted with those who don't can trusted .
- b) Teach users For recognize journal scientific vs personal blog .
- c) Check metadata, completeness documents and indexes similarities For prevent plagiarism .

Hobbs stated that in this very fast information era spread , ability *analyze* become important For prevent disinformation , hoaxes , and use sources that are not credible .

A.2. Create (Create) Digital Content)

Element *create* reflect ability For produce or create digital content in various form , such as text , images , video, audio, and interactive media others . This is not only about use tool design , but also compose communicative , informative , and ethical messages . In the role of librarian , element This looks in :

- a) Making guide use of OPAC or repository in form infographics or video.
- b) Compiling an access tutorial easy online journal understood .
- c) Make material promotion service library visually .

Hobbs emphasized that ability *create* will push somebody No only as consumer information , but also as manufacturer active digital information .

A.3. Reflect (Reflecting on Digital Ethics and Responsibility)

Element *reflect* is the core of thinking critical in digital literacy . Hobbs defines it as ability For reflect use information in a way ethical , responsible answer , and be aware will the impact . This involves understanding about right copyright , plagiarism , digital privacy , and regulations in cyberspace. Librarian need capable :

- a) Evaluate ethics upload work scientific to the repository.
- b) Reject publication document with level high similarity .
- c) Awakening users will importance citations and rights riches intellectual .

Element this is very relevant with profession librarian Because they become guard integrity academics in the digital age.

A.4. Act (Participate) Active in Digital Space)

Element lastly , namely *act* refers to the ability For involved in a way active in digital communities and use technology For contribute in a way positive and responsible answer . This includes activity like share credible information , supporting campaign educational , up to involved in discussion professional online . For librarian , this can done through :

- a) Spread information service libraries on social media .
- b) Involved in online librarian forums or literacy webinars information .
- c) Invite users For follow account official library or activity digital literacy .

According to Hobbs, the elements This is form real from role digital citizens who do not passive , but contribute in create ecosystem healthy and collaborative information .

B. Benefits Digital Literacy

Digital literacy has very many and important benefits for every individual even for in some case digital literacy that influences performance organization , as well as for education in Indonesia today This . Wright (2015) explains there are 10 benefits digital literacy , namely as following :

B.1. Save Time

In using digital literacy , users No must visit direct place If want to get information , because activity That will eat longer time if No using online media. Time will more valuable Because in business search and find information That become more easy .

B.2. Learning more fast

In use this digital literacy , users If want to get information can done with fast only with using electronic media just like *smartphone* and computer /PC. There are many things that can be done studied in a way fast through sites like Google and YouTube. all presented in detail and put into practice directly , in count second just users can find information with easy .

B.3. Save money

Utilization digital literacy on the other hand the benefits are felt that is is save money, for example in the era of the Covid-19 pandemic people are required For do all activities inside house , thing the make public more often do activity in a way *on line* like borrow books in the library with fast as well as easier and more save expenditure transportation .

B.4. Making more safe

In context restrictions social (*physical distancing*), digital literacy makes its users more safe Because No need meet in a way physical , but non- physical . Source There is a huge amount of valuable information available on the internet This Can become reference when know with appropriate in accordance his needs .

B.5. Always get information latest

Presence application from online media increasingly trusted and will make somebody always get information new , because digital media such as Now This can always updated every the second .

B.6. Always connected

Able to use a number of dedicated applications for the communication process so that make people will always connected . In matters of a important and urgent , this will give benefit alone .

B.7. Making more decisions Good

Digital literacy makes individual can make more decisions Good Because He allows capable For look for information , studying , analyzing , and comparing it When only . If the individual capable make decision until He act , actually He has get valuable information .

B.8. Can make You Work

Most work moment This need a number of form electronic media skills like computer , *smartphone* etc. With digital literacy , this can help work daily especially those related to with utilization computer , for example *Microsoft Word*, *Power Point* , or even application management document scientific like *Mendeley* and *Zotero*.

B.9. Making more happy

There are many on the internet very containing contents , such as picture or videos that

are of a nature entertaining . Therefore , with access it Can influential to happiness somebody .

B.10. Influencing the world

On the internet there are articles available that can influence the thoughts of the readers . With distribution of writing through appropriate media will give contribution to development and change dynamics life social . In a wider scope big , contribution thinking someone who is scattered through the internet is something embodiment that can influence a better world life good in the future come .

C. Development Digital Literacy

As one of the skills life , digital literacy is not only involving ability use device technology information and communication , but also the ability socializing , ability in learning , as well as own attitude , thinking critical , creative , and inspiring as digital competence . Principles base development digital literacy , namely as following (Suhardi et al., 2017) that is :

1. Understanding : digital literacy begins with understanding that includes ability get the essence of the idea from the media, both in a way explicit and implicit .
2. Interdependence : when This , the number of media is very large , different with ancient times . these media expected can side by side at a time each other complete .
3. Social Factors : individual can share messages , including message from self they alone . To who and through What information shared is factor determinant the existence of media, and is also factor determinant for the media Alone For discover , share , save , and shape return ecosystem organic .
4. Curation : curation is about keep information or content with objective *save to read later* which aims so that information the easy accessible and have benefit term long . Next , curate level carry on will play a role become curation social , namely For find , collect , and organize full information mark .

D. Skills Librarian

Librarian own important role for A library . Presence librarian who makes “ living ” library and can operate its function as institution provider need information librarian Alone defined as someone who carries out activity library with road give service in accordance with task institution its parent (Mustika, 2017). Meanwhile that , librarian school defined *International Federation of Library Associations and Institutions* (IFLA) as power education qualified as well as responsible professional answer on planning and management library college high , supported by sufficient power , working The same with all member librarian and related with library general and others (IFLA, 2018).

Related with its role as part from library , librarian own task that is manage source Power information as well as support and ensure smooth formation process knowledge through services the information it provides (Pedit , 2010). Librarians must also capable provide facilities , atmosphere , and systems that enable search and discovery relevant and quality information (Yudistira , 2017) . However , as impact development technology information that causes the emergence of new media and the rapid growth current information as because from emergence said , the task librarian as provider service information experience change For adapt trend moment This .

In the era of floods information as happened in some year later this is the task librarian No Again only limited to manage Then serve information to librarian , however must can guide librarian become literate librarians with all existing media types It means librarian must can guide the librarian For choose and determine information that becomes scale priority . Position the naturally demand skills so that librarian must own understanding

related importance digital literacy, but also must Keep going continuously increase quality source its power. Library staff must own ability teaching, always update knowledge (*willingness to learn*) and have ability practical as well as always make an effort follow development literacy (Abidin, 2019).

See importance tasks carried out librarian, then should they own skills digital literacy so that can help librarian do search and evaluation information or develop facilities that can be support activity said. Cannot it cannot be denied, no Lots librarians who know about valid information or no, scientific or *hoax*, from institution trusted or no (Wahyudi, 2017). Because of that It has been become addition obligation new for librarian For own skills in do search and evaluation information so that can help the middle librarian confusion in identify source the information he needs.

E. Challenges Library Universities and Librarians

Library college tall moment This face complex challenges in operate his role as center information, education, and research in the digital era. Developments technology information and changes behavior users demand library For transform from conventional models become center service digital-based, responsive, adaptive, and collaborative (Widyastuti & Laksmi, 2020).

One of challenge main is digital transformation of services library. According to Sugiarto and Rohmana (2021), although Lots library has adopt technology such as OPAC, institutional repositories, and e-journals, their use by the academic community academics not optimal. This is caused by lack of user digital literacy, limitations socialization digital services, as well as Not yet maximum interface User friendly and intuitive. Librarian sued No only proficient in a way technical, but also capable become facilitator who guides users in use technology information in a way effective. Change behavior information users also become challenge big. Students and lecturers now tend depend on machine seeker general like Google or Google Scholar rather than use source academic from library (Nurjanah & Rachmawati, 2020). This causes underutilization (use low) against licensed digital collections, such as journal subscriptions and e-books. On the other hand, the information obtained from source open Not yet Of course credible, so that increase risk distribution disinformation in the environment academic.

From the internal side, competence librarian become issue important. Librarian need own digital literacy which includes ability access, evaluate, create, reflect, and participate in a way active in ecosystem digital information. However, research by Hapsari (2021) shows that librarian at college tall Still tend weak in aspect manufacturing digital content and participation active on social media academic.

Whereas according to Hobbs (2010), the elements it is very important For create culture comprehensive digital literacy in the environment campus. Besides that, there is challenge in management source Power humans and policies institutional. Not all institutions give enough attention to development capacity librarian. According to research by Kurniasih and Lestari (2022), the lack of training digital literacy, lack of incentives, as well as No the existence of a development roadmap librarian become obstacle in increase quality digital library services. Without support clear and sustainable policies, digital transformation is difficult realized in a way comprehensive.

Challenge ethics and integrity academics also participate become attention. Librarian often faced with a case plagiarism, violation right creation and uploading documents that are not in accordance institutional repository standards. According to Fitria & Nasution (2019), the role of librarians are very important in ensure that information

managed and disseminated in the environment academic in accordance with principles ethics information and rights riches intellectual . Therefore that , mastery to digital ethics , metadata management , and validation document become absolute expertise owned by librarians at universities tall .

Challenge next is need will collaboration inter- unit. Library No Can Work in a way separated from faculties , laboratories , and centers research . According to Handayani and Surahman (2021), synergy between librarians and lecturers in compilation digital modules , literacy information , and repository integration can increase role library as partners strategic in education high . In the context of service , hope increasing number of users tall to service fast , personal, and based technology participate become pressure for library . If not capable answer need said , library will abandoned . According to a survey by IFLA (2018), users moment This expect flexible , mobile- based service available 24/7 .

With thus , the library college height and librarian need face challenge This with do innovation , strengthening digital literacy , improving collaboration , and fighting for support policy institutional . As stated by Daryono (2017) , librarians No only as manager collection , but also as agent changes that are capable form public academic literacy information and technology.

E.1. Ability Digital Literacy Measured from Aspect Access

Aspect *access* in digital literacy according to Hobbs (2010) emphasizes skills somebody in access various source digital information in effective and efficient . In the environment library academic , ability This covers use OPAC system , institutional repository , catalog *e-books* , and access to *e-journal* national and international . Based on interview with 5 (five) librarians at the UNESA Library UPT who have not quite enough answer different , it is known that all over informant has apply ability digital literacy in form access information in accordance field his work .

Staff collection work scientific convey that He responsible answer in manage access to repositories and collections task digital end , as well as help student in access thesis and dissertation through system campus :

" Not quite enough answer work I is guarantor KKI (Collection of Scientific Works) answers , one of them as an upload validator work to digilib UNESA. I often using journal database subscriber UNESA library , as well as e-resources from DIKTI. Apart from that , I also got routine tasks twice in a month For give guidance introduction libraries , including material access the journal database . In the activity guidance This is me guide student For access information scientific in a way appropriate and effective . " (Interview , June 4, 2025)

Statement staff collection work scientific (KKI) UPT Library UNESA regarding not quite enough the answer in facilitate access to institutional repositories and resources other digital power in line with opinion Royani and Rahayu (2022). According to They , librarians in the digital era are required No only control skills technical management digital information , but also has ability high digital literacy For can accompany librarian optimally . Digital literacy is here covers understanding to system management digital content such as institutional repositories , skills in identify relevant information , as well as ability in use and teach utilization of academic digital platforms to users . repository management is not just nature administrative , but also requires competence digital literacy for librarians capable do validation content , ensuring metadata is appropriate standards , as well as ensure usability and visibility work scientific through digital systems . In the context this , role librarian as an upload validator works and facilitators access to collection digital science is

becoming very important , especially in support openness information scientific in the environment college tall .

Ability For give mentoring to student in access e- resources , as done through activity guidance literacy information at the UNESA Library UPT , also becomes part from digital literacy librarians . Activities This No only educate student in matter technical search information , but also instill principles digital literacy such as evaluation quality sources , understanding right creation , and ethics use digital information . With thus , the statement from informant show implementation real from draft digital literacy librarian as described by Royani and Rahayu (2022), namely capable librarian manage digital information in professional at a time support librarian in access , assess , and use information in a way wise and responsible answer .

Guarantor answer references and publications periodically explain that He own role active in help community academics , especially students and lecturers , in access sources digital information provided by the library . In the implementation his job , he often accompany users in browse journal electronics originating from from the e-resources of the Ministry of Education, Culture , Research, and Technology (DIKTI) and various journal international subscriptions by the UNESA library . Apart from that , he also guides users in use of OPAC (Online Public Access Catalog) as tool main search collection library . In the interview , the informant stated : “ *I usually help lecturers and students access e-journals, both from DIKTI and journal international . I also always accompany users library in OPAC usage .* ” (Interview , June 1, 2025)

From the statement said , can seen that librarian has operate competence access , which according to Hobbs (2010) refers to the ability individual in find and use media and technology in a way effective For get relevant information . In case this , librarian No only as users technology information , but also as facilitator digital information that bridges between system technology libraries and librarians . Ability mentoring in accessing e-journals and OPAC is form implementation real from skills technical and digital literacy of librarians , which is very important in environment academic . Existence skilled librarian in the use of digital platforms will be very helpful community academics in navigate various source available digital information , so that the learning , research and compilation processes work scientific can walk more effective .

According to Wahyudi (2017), one of the role modern librarian is guide users in utilise digital sources optimally . In the middle development technology very rapid information , role This become crucial , considering No all users own ability high digital literacy . Therefore that , assistance by librarians in access and use digital sources no only functioning as service technical , but also as effort education to users . More further assistance This show that librarian No nature passive in provide service , but rather play a role active in push skills user digital literacy library . This is in line with draft digital literacy that is not only emphasize aspect technology , but also includes interaction responsible social and educational answer in digital space .

With thus , it can concluded that guarantor answer references and publications periodically at the UNESA Library UPT has fulfil access aspects in digital literacy with well , through role active in help users access and utilize source digital information in effective . This role No only support need information academic users , but also reflect relevant digital literacy of librarians with demands of the information age .

Guarantor answer circulation 1 conveys that He regularly help student in browse collection physical in the library . In his duties , he often accompany users in using OPAC

for look for book prints available on the shelves , as well as explain the procedure borrowing and returning collection through system automation library. In interview , he stated : "*I help student look for book physical and shows method using OPAC for search .*" (Interview , June 1, 2025)

Statement This show that librarian in the section circulation also has competence in access and utilize digital library technology , in particular in use online catalog (OPAC). Although focus service is in the collection physical , skills in operate system search digital - based become part from digital literacy is important . According to Widayanti (2015), librarian at the service circulation need own sufficient knowledge about method OPAC work to be able to help users navigate system search collection . Skills This is part from access elements according to Hobbs (2010), which emphasizes importance ability find and use technology information in a way effective .

Guarantor answer circulation 2 also states that He often direct student For access e-books and digital journals through catalog libraries that have integrated with digital collection . He explain that a number of student often come with question around access campus e-resources , and he give guide technical about method search through online catalogs and e- book platforms . His statement as following : "*I also direct student If want to access e-books or journals that have been available by the party campus through our digital catalog .*" (Interview , June 1, 2025)

This matter show that librarian circulation No only limited to services borrowing collection print , but also plays a role as intermediary digital information with give guide technical about access online collection . This strengthens proof that competence digital access is already expanding until to all over line service librarians , including front desk services such as circulation . According to Soraya and Rohmaniyah (2023), librarians who are able to guide users in browse e-books and resources information electronic other through digital catalog has apply digital literacy in practice professional . They don't only know method access digital information , but also capable of share it to users in a way clear and structured . With thus , it can concluded that librarian in the section UNESA circulation has control skills access relevant digital information . They play a role active in give service technical and educational to users , okay in use of OPAC and in access digital collections such as e-books and journals . This show that access aspects in digital literacy has implemented in a way comprehensive and supportive creation service inclusive information in libraries academic .

On the side technical , guarantor answer automation and conservation convey that task mainly is ensure digital library system walk with good and able accessible to all users without obstacles . In the context of this , he responsible answer to smoothness operational various digital systems such as OPAC, institutional repositories , and service access to e-resources used by the UNESA library . When this happens disturbance technically , he quick do checking and repair system for access permanent digital information fluent .

In an interview , he stated : "*I confirm digital systems such as OPAC and repositories are running smoothly . If there is disturbance , I direct set the improvements .*" (Interview , June 1, 2025)

Statement the show that librarian in the field automation own role crucial in guard library digital infrastructure to remain stable and functional . This role is foundation from access element in digital literacy according to Hobbs (2010), because before users can access information in a way effective , digital systems that support access the must walk with Good moreover formerly .

According to Kurniasih (2015), librarians in the digital era do not only need own ability service information, but also mastery technical to system automation library. This covers skills in handle system information library, device soft catalogs, online databases, and other digital services that are back-end in nature but are very decisive accessibility information by the librarian. In addition to ensuring performance system, informants also play a role in support integration digital services, such as integration between the OPAC and the repository platform and e-journal catalog. This support experience more users efficient and unified in One system search.

With Thus, librarians in the field automation No only working behind the scenes screen, but in a way active support affordability and speed access digital information by librarians. Success service information digital- based is highly dependent on readiness and maintenance a system managed by librarians in the field this. Therefore that is, the technical digital competence possessed by the guarantor answer automation and conservation become form real from implementation access element in context digital literacy of librarians.

E.2. Ability Digital Literacy Measured from Aspect Analyze

Aspect *analyze* in digital literacy according to Hobbs (2010) refers to the ability somebody in understand, assess, compare, and evaluate content digital information in critical. In the context of librarian, thing This means ability For evaluate validity and credibility source information, review repeat quality content, as well as accompany users in differentiate valid and invalid information.

Staff The Scientific Works Collection (KKI) has not quite enough answer important in validate uploads work scientific student to the UNESA repository. Assignment the covers checking suitability structure academic, completeness of metadata, up to aspect authenticity work For prevent plagiarism. In this process, the librarian need For own skills good digital analysis, especially in verify truth and appropriateness information scientific that will published online. In the interview, KKI staff said:

“I evaluate accuracy digital information with view the source domain (eg . . ac.id, . go.id), search background behind writer, and check whether article originate from peer-reviewed journal. For article general, I always check at least two or three source credible others. I also use tool help such as Google Scholar, Snopes, and TurnBackHoax.id in the validation process information.” (Interview, June 4, 2025)

Statement the show that librarian has apply analysis information with a systematic and digital - based approach. It No only check in a way administrative, but also use reference cross and tools digital assistance for ensure validity something information. This is implementation direct from analysis elements described by Hobbs (2010), where librarians expected capable understand goals and sources digital content, assessing its credibility, as well as consider context social from information said. Ability analysis this is also relevant with opinion Royani and Rahayu (2022), who emphasize that validation content academic and metadata evaluation is part important from digital literacy of librarians. They mentioned that librarian who manages the institution's repository need own skills in evaluate quality digital content, ensuring metadata is appropriate standards, and do checking authenticity work before can accessible in a way widely by the community academics. Use of tools such as Google Scholar for browse references, as well as checking sites hoax such as Snopes and TurnBackHoax.id, reflect that KKI staff do not only own literacy technical, but also ethical high information. This is important For guard integrity academic in campus repository management.

With thus , it can concluded that staff UNESA's Scientific Works Collection (KKI) has show competence digital literacy in analyze aspects very well . Ability For evaluate source information , evaluate quality work scientific , as well as use tool digital assistance effective make it actor important in guard quality and credibility digital information in the environment academic .

Guarantor answer references and publications periodic also shows ability digital literacy in analyze aspects through his duties in accompany students and lecturers in evaluate as well as choose source relevant and credible digital information . In activities everyday , he often give education to users library about difference between source scientific and non-scientific , as well as How evaluate validity journal used in compilation work scientific . In the interview , the informant stated : "*I teach student differentiate peer-reviewed journals and regular blogs . They sometimes Confused question validity source .*" (Interview , June 1, 2025)

Statement This reflect role important librarian as companion literacy information , which is not only provide access to source information , but also provide users with ability For evaluate quality and credibility the information they consumption . Assistance kind of this is very relevant in the flood era digital information , where the boundary between content scientific and opinion personal become the more blurry .

Ability differentiate journal scientific that has through a peer-review process with content from blogs or sites not official is form implementation skills analysis of digital media and information . Hobbs (2010) states that analysis capability includes the process of evaluating content , structure , sources , and bias of A information . In case this , librarian has apply skills the with help users recognize characteristic features information valid scientific , such as existence references , names of institutions , authors , and a structured editorial process . According to Kurnianingsih et al. (2018), ability librarian in accompany users recognize characteristics journal scientific is indicator important digital literacy in context academic . Through education this , librarian participate increase awareness users to importance use sources that can accountable in a way academic . In addition , the role of librarian in give guidance to student about validity sources also contribute in prevent distribution information that is not accurate or hoaxes , especially moment student quoting from the internet in a way haphazard approach This show that librarian No only Work in a way technical , but also running function educational and critical to digital content .

Guarantor answer circulation 1 also shows his involvement in accompany student in the process of assessing quality digital information that they find , especially when student bring reference from the internet or unidentified sources clear its credibility . In practice , it often help student For identify whether something article or information can trusted or no , with see Who the author and where the source is from originated . In the interview , the informant stated : "*I help student evaluate whether article from the internet can trusted or no , with see Who author and where the source is from .*" (Interview , June 1, 2025)

Statement the show that although librarian This assigned to the section circulation , he still own role important in the educational process literacy information . Ability For help users evaluate credibility information is part from element analysis according to Hobbs (2010), which refers to the evaluation content , source , purpose , and context from digital information consumed . Approach this is also in line with Wahyudi's (2017) thinking , which states that librarian own not quite enough moral responsibility in guide users so as not to trapped in information that is opinion or even hoax . In the middle easy access information through machine seeker like Google, users often take information without evaluate its

validity . Therefore that , role librarian as companion evaluation information become very important in push culture think critical among student .

In line with that , the guarantor answer circulation 2 conveys that he is also active push student For use reference from more sources credible and can accountable in a way scientific . He state that a number of student Still often rely on blogs or sites without runway academic , and his duties is direct they For look for more references right . In the interview , he said : "*If there is students who bring reference from the blog, I recommend looking for more credible like journal or report research .*" (Interview , June 1, 2025)

The action is form real from implementation digital literacy in aspect *analyze* , where the librarian No only play a role in provide information , but also educational users For behave critical to source the information they use . This is appropriate with opinion Subekti and Hidayat (2021), who emphasize that personal blog or article from the site no official No can made into references scientific Because No through a rigorous editorial or peer-review process .

A capable librarian provide advice and direction to choice source information users , participate help guard quality knowledge academic and encouraging attitude selective in consume digital information . With involvement this , librarian No only play a role as officer circulation , but also as partners learning for students . With so , good guarantor answer circulation 1 and 2 have been apply element *analyze* in digital literacy in general functional . Involvement they in help student evaluate source information show that digital literacy is not only not quite enough answer librarian in the field references , but also parts from competencies that must be owned by all line service library .

Guarantor answer automation and conservation also show implementation *analyze* aspects in his duties through the evaluation and management process incoming digital information to system libraries , especially institutional repositories . It responsible answer For ensure that every uploaded digital content to the repository no only functioning in a way technical , but also fulfills standard quality information from side structure and metadata. In the interview , the informant state :

"*I make sure uploaded content to the repository has correct and structured information neat . Metadata must be accurate It means all information accompanying the file must be in accordance with content document the original . For example , sometimes student made a typo year , or name of lecturer mentor No listed complete . I checked one by one before enter to repository system . If there is something that is not appropriate , I return to KKI validator section so that repaired Formerly before upload repeat . if metadata is not complete or wrong, later difficult searched in OPAC or Digilib . For example the author there are two, but only in metadata one , that Can make work That No appear moment searching for by name. Or if the keyword No relevant , other students also have difficulty find appropriate work needs .*" (Interview , June 1, 2025)

Statement the clarify that not quite enough answer librarian No only limited to aspects technical file uploads , but also includes analysis to quality information attached to the digital content . This in line with *analyze* elements in digital literacy according to Hobbs (2010), where the ability *analyze* content , context , and structure information become skills key in manage source digital power in responsible answer .

According to Kurniasih (2015), librarians who handle system automation and repository must own understanding about the importance of metadata in the meeting process return information . Metadata that is not accurate can cause information No found or misclassified , so that disrupt the search process information by the librarian . With thus , it

can concluded that guarantor answer automation and conservation at the UNESA Library UPT has apply ability to analyze deep , especially in matter metadata evaluation and validation structure digital content . Capabilities This become runway important in guard integrity , accessibility , and reliability system digital information in the environment college tall .

E.3. Ability Digital Literacy Measured from Aspect Create

Aspect *create* in digital literacy according to Hobbs (2010) refers to the ability individual in create , compile , and distribute digital content in a creative , informative , and responsible answer . In the context library academic , ability This covers creation of digital guide media such as infographics , video tutorials, service posters , or other visual content that can help librarian understand procedure services and access information in a way independent .

However based on results interview , staff The Scientific Works Collection (KKI) states that He Not yet Once make digital content , both in in the form of posters, infographics , videos, or other visual tutorials For help student access the repository or understand the upload process work scientific in a way independent . He also revealed that He Not yet Once use tool help design like Canva or application similar For needs In the interview , the informant convey : " *I haven't Once make digital content such as video tutorials or educational posters . If you create digital information , I also haven't try use tool like Canva.* " (Interview , June 4, 2025)

When asked whether making such media That will help the service process , he added : " *If there is guide in visual form such as a step-by-step poster upload or short video Possible will more help students . So they No need ask repeatedly . But indeed I Not yet Once make That Because usually we just explain direct moment guidance .* " (Interview , June 4, 2025)

From the statement the can concluded that actual KKI staff realize importance digital content in help librarians , however Not yet own skills or habit create the media . This shows that aspect *create* in digital literacy in himself Not yet fully developed or implemented in a way active . Even though according to Royani and Rahayu (2022), librarians in the digital era are expected to capable become a simple content creator who can change information procedural become easy visual or audio visual content understood users . This is important especially in context digital services and institutional repositories , the procedures for which Enough technical and repetitive . The absence of visual guides such as upload video tutorials thesis , procedure poster validation , or infographics repository introduction can become obstacle alone for student in access service in a way independent . Many students Finally still depend on guidance directly , the real thing can minimized with digital media support .

With thus , it can concluded that ability *create* on staff The Scientific Works Collection (KKI) is still need improved . Although own understanding will importance digital content for support service , lack of skills in create visual information media to show the need training or development competence in the field this . Librarian in the section digital services such as KKI ideally capable serve information in more forms interactive , easy understood , and can accessible When only by the user .

Guarantor answer references and publications periodically show implementation aspect *create* in digital literacy in general active and productive . He convey that in operate his job , he No only help students and lecturers access digital information , but has also create digital educational media such as access tutorials journal electronics , digital posters, and guides OPAC usage . Creation content This aim For support independence users in

understand service libraries , in particular related access source online scientific research . In the interview , the informant stated : “ *I made a digital tutorial and poster about access journal international and ways search in the OPAC. Usually I design Alone use Canva, then we share via social media library or displayed on the TV screen information .* ” (Interview , June 1, 2025)

Statement This show that informant has own skills technical and creative in compile relevant digital content with need information community academics . Not only just convey information oral or written , librarian This active create more visual material easy understood and can accessible at any time by the librarian .

This matter in accordance with element *create* according to Hobbs (2010), namely ability produce content with consider goals , audience , and techniques appropriate delivery . In context library academic , capable librarian create digital guide shows digital literacy level continue , because No only consume technology , but also use technology For educate and serve . According to Kurnianingsih et al. (2018), manufacturing digital content such as online tutorials, infographics , and digital leaflets are form real from role librarian as agent education literacy information . Contents This make things easier librarian in understand complex processes like search journals , database utilization , and use system information library .

Use tool design as Canva also points out existence adaptation visual technology in work librarianship . This is especially relevant in the digital age, where students tend more responsive to visual information compared text long narrative . With thus , it can concluded that guarantor answer references and publications periodically has show ability digital literacy in aspect *create* optimally . Creativity in make content , skills use tool help digital design , as well as ability convey information in attractive visual form make it as adaptive librarian to development technology information and communication in the environment academic .

Guarantor answer circulation 1 conveys that He Not yet Once make digital content such as guide related loans , infographics , or video tutorials service circulation . He confess that part great educational process to users Still done in a way direct (face to face) face), for example when student new come For ask method look for book or procedure borrowing and returning collection . In the interview , the informant stated : “ *Usually I explain direct to student or librarian anybody That if they Confused question method borrow or search book . Never make guide in poster or video form .* ” (Interview , June 1, 2025)

Statement This show that the create aspect in digital literacy in librarians circulation 1 still Not yet implemented in a way active . In fact , according to Hobbs (2010), the ability create important digital content For expand range information and help users understand service without must always ask directly . In addition , librarians circulation own potential big For creating guide media service such as video tutorials on borrowing , step-by-step posters use of OPAC, or infographics introduction to rules and regulations service circulation . Content kind of this is very helpful , especially for student new frequently confusion moment first time using service library .

Guarantor answer circulation 2 also conveys matter similar . He confess Not yet Once make digital content in a independent , but state interested If given training or chance For Study make visual guide . It realize that need student to more guides easy accessed and understood very high , but limitations skills make content become constraint separately . In the interview , the informant said : “ *If there is training for make a video or infographics ,*

me interested come along . Because now student more Like Look picture or video than read text long .” (Interview , June 1, 2025)

Statement This show that although Not yet make digital content , there is awareness and desire For develop from librarian in the section circulation . This is become opportunity big For increase ability digital literacy , especially in the creative aspect , through training skills design content or creation of information media simple . According to Royani and Rahayu (2022), librarians No must become designer professional , but need own ability base make content informative visuals that are attractive and easy to understand understood . This is become part important from transformation service libraries in the digital age, where communication information No only verbal or long written , but also visual and interactive .

With thus , it can concluded that the create aspect in digital literacy in the guarantor answer circulation 1 and 2 still is at the stage early . Although Not yet there is practice direct in manufacturing digital content , there is awareness will the importance of visual media in support services , as well as desire For learn and adapt . This is open room for development competence librarian circulation in produce content more services attractive , responsive , and easy accessed by librarians .

Guarantor answer automation and conservation disclose that although himself play a role active in ensure smoothness digital library system such as OPAC, repository, and e-resources services , it Not yet Once make digital content in forms of educational media , such as video tutorials or posters of related services with technology library . Focus main his duties during This is behind screen , namely ensure system running normally, performing troubleshooting, and perform system updates and repository views if required . In the interview , the informant explain : “ *I haven't Once for content education such as digital videos or posters. Usually I more to technical make sure repository system can accessed , the OPAC has no errors, and the display updates . But if ordered help make a video, I Possible can , just Not yet Once try .” (Interview , June 1, 2025)*

Statement the show that librarian This own ability high technical , but Not yet in a way explicit produce informative digital content that can utilized by users in a way directly . In other words, the create aspect in digital literacy yet come true in visual media form or guide educational , even though from side ability technically , he own potential big For support matter According to Hobbs (2010) , digital literacy in the create aspect includes ability For convey information through various digital formats with notice context , goals , and needs audience . In case this , knowledge technical librarian automation Actually can utilized For create a video tutorial OPAC usage , how to upload document to the repository, or the metadata management tutorial , which is very useful for student and librarian other .

According to Kurniasih (2015), collaboration between librarian technical and service is key in produce digital content that is not only informative but also easy used by users . This is signify that role librarian automation No must limited to work technical behind screen , but also can contribute in production content educative through synergy cross- division. With thus , it can concluded that guarantor answer automation and conservation own potential big in the create aspect , but Not yet apply it in a way concrete in form visual content or digital guide . If given room collaboration and training , skills technical skills owned can become base strong For develop effective and innovative service media , in accordance with with need information users in the digital age.

E.4. Ability Digital Literacy Measured from Aspect Reflect

Reflective aspect in digital literacy according to Hobbs (2010) refers to the ability individual For understand , evaluate , and consider impact social , ethical , and legal from

use as well as distribution digital information . In the context librarian , ability This covers awareness to ethics information , rights copyright , plagiarism , and policy related institutions with management and distribution work scientific digitally .

Staff The Scientific Works Collection (KKI) shows implementation reflect aspect in validation and upload process work scientific student to the UNESA repository. He state that before something work scientific can uploaded online and open For public , librarian must do checking to originality manuscript , format conformity , and completeness statement free plagiarism . The informant also said that If found too much similarity tall in results similarity index check , then student will requested For do revision moreover formerly . In interviews , informants stated : " *If the results turnitin high , we don't direct upload . Usually I ask for student For revision before , because This concerning originality and ethics academic .* " (Interview , June 4, 2025)

In addition , he also pays attention to permission access to work said , whether may displayed in a way full (*open access*) or only partial (*restricted access*), according to with statement signed permit students . " *We also see before , was it student allow his thesis opened full or part only . It is important , because related with right creation they .* " (Interview , June 1, 2025)

Statement This show that KKI staff have awareness tall to aspect ethics digital information . It No only operate procedure technical upload documents , but also consider implications law and social from distribution work scientific digitally . This is reflect mastery reflect element , where the librarian capable make considered decision rights , responsibilities responsibility and interests other parties . According to Wahyudi (2017), awareness to principle ethics and rights creation is the core of reflective digital literacy . Librarian as manager information must capable distinguish which information can be distributed in a way open , whichever is required restrictions access , as well as How evaluate validity and originality managed content .

Preventive measures taken KKI staff , such as reject upload document with level plagiarism tall or adjust access status in accordance statement students , showing that He has apply policy management information in a way responsible answer . This is a form real from digital literacy that is not only focus on skills technical , but also values ethics in environment information academic .

With thus , it can concluded that staff The Scientific Works Collection (KKI) has show ability *reflect* in digital literacy through implementation principles ethics , originality , and protection right creation in repository management . This make it actor important in guard integrity academic as well as ensure that every work published scientific papers digitally has go through the evaluation process adequate ethical and legal .

Guarantor answer references and publications periodic also shows implementation reflect aspect in activity digital services that it provides . In accompanying student and lecturer access digital information , he No only help from side technical , but also provides understanding related credibility sources , ethics use information , as well as importance list source in a way Correct For avoid plagiarism . In the interview , the informant convey : " *I often remind student so that No origin take article from the internet. I direct to journals that are peer-reviewed and helpful they understand method quote correctly .* " (Interview , June 1, 2025)

Statement the show that librarian own awareness will importance integrity academic , which is part from reflect aspect in digital literacy . He No only guide search information , but also instill attitude critical and ethical in its use . This is very important , especially for

students who are still tend quoting without notice authenticity sources and methods proper citation . In addition , he also stated his concerns to trend part students who are too depend on the content of the blog or site without editorial standards :

" *A number of student Still use blog as reference main . Even though in a way academic That No strong . I direct they For more critical , don't Just copy it.* " (Interview , June 1, 2025)

This matter show that librarian No only focused on providing information , but also plays a role as mentor ethical in the learning process community academics . He push student For No only access information , but also to reflect impact and responsibility answer in disseminate it . According to Hobbs (2010), the elements *reflect* in digital literacy involves thinking critical about How information created , used , and disseminated , incl impact social as well as not quite enough answer ethically . In the context of this , librarian functioning as intermediary between technology information and values academics that must be guarded in the educational process tall .

Approach librarian in give guidance about method quoting , selecting sources that can accountable , and avoid plagiarism is form strengthening digital literacy based value . This is in harmony with opinion Royani and Rahayu (2022), who stated that digital literacy is not will means without existence reflection to moral, social and legal aspects from use information . With thus , it can concluded that guarantor answer references and publications periodically has apply aspect *reflect* in digital literacy in general consistent through practice service everyday . Awareness to ethics academic , validity sources and responsibilities answer in utilization information make it agent important in implant values think critical and responsible in the environment library academic .

Guarantor answer circulation 1 reveals that He Not yet in a way special give guidance to student related aspect ethics digital information . Focus main his duties Still focused on service technical , such as help search books and procedures borrowing . However , he realize that student often ask reference from the internet that has not of course valid and can accountable . In the interview , he stated : " *Usually I help they search books . But sometimes there are also those who ask question article from the internet, is it That may made into reference . If you feel not enough convince me , I point look for more academic .* " (Interview , June 1, 2025)

Although No in a way explicit teach ethics information , action direct student For look for more sources credible is part from implementation reflect elements according to Hobbs (2010), which include understanding about quality , responsibility responsibility and impact from use digital information . Librarian This show existence awareness For guide users so as not to haphazard in choose information from the internet, even though Not yet accompanied by with formal training or guide special about ethics information .

Guarantor answer circulation 2 also conveys similar views . He state that He Not yet Once give direction direct about right creation or plagiarism , however try give understanding base to students so as not to haphazard copy information from the internet without list source . In an interview , he said : " *I haven't Once discuss question plagiarism to students , but if something is visible just copy-paste from the internet, I usually love know For write the source . At least they know That No Can carelessly .* " (Interview , June 1, 2025)

Statement the show that librarian in the section circulation own awareness base to not quite enough answer ethical in use digital information , although Not yet in a way systematic convey it as part from service . He has try grow habit mention sources and provide

directions light related use responsible information answer, which is part from values reflect aspect in digital literacy. According to Royani and Rahayu (2022), librarians who understand importance ethics information can become connector between technology and values. Although librarian circulation No in a way direct handle work scientific, but role they in guide student still important as form moral and ethical literacy information everyday. With thus, it can concluded that guarantor answer circulation 1 and 2 have been show awareness beginning to reflect aspect, although its implementation Still limited to action spontaneous or informal guidance. This role still important in create culture responsible digital literacy responsible in the environment library, and potentially strengthened through training or integration values ethics information in service circulation in a way more systematic.

Guarantor answer automation and conservation own role important in guard integrity system digital information used by libraries, but in context reflect aspect, he confess that Not yet in a way special apply principles ethics information in a way direct to user. Focus main his work during This is ensure system walk stable, no There is error technical, and metadata of the work scientific in the repository has appropriate. Although thus, he still show awareness to not quite enough moral responsibility in guard security and legitimacy uploaded digital content. In the interview, the informant stated: "*If from side technically, I make sure the file is not Can accessible if Not yet appropriate. But for problem ethics, I usually hand over to the validator or KKI librarian directly. I just ensure system no error, and no there was a leaked file before Ready displayed.*" (Interview, June 1, 2025)

Statement This show that although No face to face direct with student in matter education ethics information, guarantor answer automation still play role important in guard responsible access answer to digital information. It ensure that document No will come on stage in a way public If Not yet go through the appropriate validation process, as well as protect right creation users with comply arrangement access documents (for example: *full access or partial access*). In another part of the interview, he also added: "*I have to make sure the file is uploaded No open For general if his status still reviewing or No There is permission access full. It concerns right students too.*" (Interview, June 1, 2025)

Statement This reflect that although his role be behind screen, he understand that technology the information he manage concerning digital rights and privacy students, who are part from reflection ethical in management digital content. In the context digital literacy, action This including to in reflect element, where the individual realize consequence social and legal from use as well as distribution information. According to Hobbs (2010), the ability to reflect includes awareness about How decision in digital space can impact on the rights of others, including in matter distribution information and settings access public. Guarantor answer automation has show that He operate function This in a way responsible answer, even though No in a way explicit accompany users in understand ethics information.

With thus, it can concluded that guarantor answer automation and conservation has apply reflect element in digital literacy through his actions in guard control access digital files, ensuring security documents, and respect students' digital rights. Although No involved direct in education users, their roles crucial in support management ethical, safe and appropriate information provision institutions.

E.5 Ability Digital Literacy Measured from Aspect Act

Act aspect in digital literacy according to Hobbs (2010) refers to the ability individual For participate in a way active, responsible responsible and ethical in digital community.

In the context librarian , element This covering involvement in spread accurate information , encouraging practice digital literacy to users , as well as play a role active in build ecosystem healthy information through digital media and online platforms.

Based on results interview , staff Scientific Works Collection (KKI) has not been fully apply aspects of the act in active in digital environment . It convey that during This Not yet Once give information through social media personal and institutions , as well as Not yet Once involved in activity digital literacy in general open such as webinars, online discussions , or promotion service digital -based on public platforms . In the interview , the informant stated : “ *I haven't Once follow spread information or activity service via social media . Usually if There is announcement , that from Public Relations or part service information . I just Focus on validation and uploading the repository.* ” (Interview , June 4, 2025)

This matter show that participation active KKI staff in the digital space are still limited to the role administrative and technical . He Not yet utilizing digital media as means For reach users more area , or For convey information important regarding repository, upload work scientific , or guide service others . In fact , the role librarian in speak out information through social media can strengthen involvement users as well as create room more collaborative open . According to Royani and Rahayu (2022), librarians who have digital literacy in the act aspect will capable become agent distributor information active and ethical educative in the digital space . This includes activity like share content informative , voicing importance literacy information , inviting users For active follow digital library services , as well as spread practice healthy digital literacy through various platforms.

Although Thus , KKI staff showed attitude open to possibility For contribute more active If There is training or formal involvement in activity digital literacy .

“ *If invited For follow activity like online socialization or posting guide information to student , I Actually willing . But not yet Once assigned or invited in a way directly .* ” (Interview , June 4, 2025)

Statement This show existence potential and will For participate in digital space , however Not yet actualized in form concrete . This is can become notes important for manager library For push involvement librarian in practice greater digital literacy wide through involvement direct and training . With thus , it can concluded that aspect *act* on staff Scientific Works Collection (KKI) has not been implemented in a way maximum . Although own understanding to his duties in internal digital realm , he Not yet take role active in spread information or build two- way communication with users through digital media. This is show importance support institutional in empowering librarian For participate active in ecosystem collaborative and open digital literacy .

Guarantor answer references and publications periodically show implementation act element in digital literacy in general active and real . He No only give service information in space physique library , but also involved direct in spread information through social media institutions , contributing to content digital education , and participate as well as in activity online -based digital literacy , such as creating access tutorials journals and campaigns utilization of OPAC. In the interview , the informant convey : “ *I am active help manage content posted on social media library . For example, access info journals , OPAC usage , or search tips the right reference . Sometimes also involved make the caption let easy understood students .* ” (Interview , June 1, 2025)

Statement This show that librarian No only play a role as provider service passive , but also participating in a way active in ecosystem digital information , according to with

principle digital literacy in act aspect according to Hobbs (2010). Librarian like This capable utilizing digital media as channel education and communication , as well as participate push improvement literacy information among community academics .

Not only that , the informant also conveyed that He sometimes follow as well as in online discussion or librarian forum at the level local For each other exchange related information and strategies digital services . This is show existence Spirit collaborative and engagement in community digital information in professional . “ *Sometimes I'm coming too online discussion via WA group or librarian forum , if there is something to discuss question digital literacy or "E-journal services . So we can share too ."* (Interview , June 1, 2025)

Involvement This show that informant No only spread information , but also build networking and collaboration For support development service digital- based . This is in accordance with opinion Royani and Rahayu (2022), who stated that active librarian digitally have role important in strengthen network digital literacy through participation in various room information open . With involved direct in activity distribution information , promotion services , as well as discussion professional , guarantor answer references and publications periodically has apply the principle of action comprehensive namely using digital media to contribute in a way ethical , collaborative , and productive in build literacy information in their community .

With thus , it can concluded that informant namely guarantor answer references and publications periodically This show competence digital literacy in aspects *act* optimally . He has play a role active No only as transmitter information , but also as motivator and facilitator digital literacy through his involvement in social media , creation content informative , as well as participation in the discussion forum profession librarian .

Guarantor answer circulation 1 conveys that He Not yet Once in a way active spread digital information or participate in social media library . Focus his duties Still service - centered borrowing and returning collection , as well as help users in a way directly in the room service . He also conveyed that Not yet Once make or give digital information such as announcement services , search tips collection , or promotion activity library through online platforms. In the interview , the informant stated : “ *I haven't ever posted information whatever question libraries on social media . Usually public relations department or the one in the reference made that . I'm more lots on the table circulation , help student directly .* ” (Interview , June 1, 2025)

Statement This show that involvement librarian This in aspect *act* still limited . He Not yet utilise digital space for convey or strengthen service library in a way open . In fact , according to Hobbs (2010), digital literacy in aspect *act* involves participation active in digital space in ethical and productive , including spread useful information , please join as well as in digital communities , and facilitate discussion constructive public . Meanwhile that , the guarantor answer circulation 2 also states Not yet Once in a way direct publish content information library digitally . However , he confess several times shared repeat information official from account library through social media personal , especially If information the important for students , such as timetable holiday service , extension borrowing , or announcement technical others . In the interview , the informant stated : “ *I am indeed No make content alone , but sometimes I repost from the library's Instagram if there is important information . At least let The students who follow me also know .* ” (Interview , June 1, 2025)

The act of sharing repeat information institutional the is form beginning from participation active in the digital space , even though Still limited . This shows that He own

awareness will importance distribution digital information to users , even though Not yet involved in manufacturing the content in a way directly . This is in line with understanding beginning to act elements , where digital participation can started from action small impact positive .

According to Royani and Rahayu (2022), librarians need take role as facilitator digital information , no only in the environment physical , but also through online channels that allow information more fast spread and more wide reach users . With thus , sharing repeat information service is also form meaningful contribution in literate digital ecosystem . With thus , it can concluded that guarantor answer circulation 1 not yet show implementation act element , while guarantor answer circulation 2 already start involved in a way simple through redistribution digital information . Their role in convey information to users in the digital space still can improved through training , collaboration with public relations department , as well as utilization of social media personal and institutional For strengthen communication service library online .

Guarantor answer automation and conservation own role important in manage and maintain smoothness digital library system . However , in context act aspect , he confess that himself Not yet in a way active using digital media or online platforms to participate in distribution information or campaign digital literacy to users . The focus during This more many aspects technical like OPAC maintenance , repository repair , and support internal system . In the interview , the informant convey : *" I am more to technical yeah , so Not yet Once follow spread information service or activity to social media . Usually That other parts take care of it . But I make sure repository system or OPAC can accessible with " Smoothly . "* (Interview , June 1, 2025)

Statement This show that although He Not yet active in matter digital communication to users , their role is very important in support digital infrastructure that enables other librarians and users Can interact online . Without stable and functional system , deployment process digital information will also disturbed .

However when asked more continued , he state willing If requested For support manufacturing content educative based system or create technical video tutorials simple , though Not yet Once do it previously .

" If anyone asks help make a video about method use OPAC or upload to repository, I Possible can . But not yet Once requested or directed "There . " (Interview , June 1, 2025)

Statement This show existence potential involvement in active digital participation , in particular in realm very technical he master . With guidance and collaboration cross part , he can contribute in production content digital educational materials such as system tutorials , repository guides , or simple troubleshooting , which are really needed by students and staff others . According to Hobbs (2010), the elements *act* No only about spread information on social media , but also includes contribution positive in digital community through participation , production content , and support to involvement responsible information answer . In the context this , librarian automation Actually own position strategic For push progress digital literacy from come back screen , through manufacturing content technical or training system for users and colleagues colleagues .

With thus , it can concluded that act aspect on the guarantor answer automation and conservation Not yet fully implemented in a way explicit , but He own readiness and capacity For involved more Far in digital space . The technical role it plays is foundation main for sustainability digital interactions in libraries , and with proper support , he can

become part from ecosystem digital literacy that is not only functional , but also characteristic collaborative and communicative .

CONCLUSION

In terms of access, all librarian show good mastery to facilities and systems digital information . They are able to access , direct , and accompany community academics in utilise source digital resources such as OPAC, e-journals, repositories, and e-resources services . In fact , librarians in the department automation play a role important in guard stability technical digital systems , ensuring access information walk smoothly . This is signify that access elements have been become part important in routine librarian , and in general general has mastered with Good .

Meanwhile, in the analysis aspect , it was found that part big librarian own ability For evaluate information in a way critical , especially in evaluate metadata accuracy , authenticity content , as well as credibility source information . KKI Librarian , active verify originality work student via Turnitin and metadata validation before uploaded to the repository. Librarian references also guide student in differentiate source academic and non-academic . However , in the section service like circulation , application aspect This more nature basic and not yet done in a way systematic , although still show concern to validity information used student .

For aspect *create* , only librarian references that are active create digital content such as posters, infographics , and digital tutorials. Meanwhile that , librarian others , including from KKI, circulation , and automation , not yet Once make digital content in a independent . This is show that ability For compile and distribute information in visual form or interactive Not yet evenly throughout part service . In fact , the ability make digital content is very important in the information age moment this , no only For efficiency services , but also as an educational medium that supports independence user .

Next on the aspect *reflect* , KKI librarian and reference show level awareness high ethics in manage digital information , especially in context originality works , rights creation and policy access . They are active reject uploads with level plagiarism high , and set repository access status accordingly permission student . Librarian circulation and automation Not yet Lots involved in education about ethics information , but has show attitude be careful and responsible answer in ensure information No misused or opened before time . This reflects that reflect aspect starts applied , although need strengthening to become part from culture Work librarian in a way comprehensive .

Lastly , on the aspect *act* only librarian references that show participation active in public digital spaces , such as manage content on social media library and join in discussion librarian online . Meanwhile that , other librarians have not show involvement active in spread digital information or campaign literacy information in a way open , even though There is indication readiness For involved If given opportunities and training . This shows that act element still become challenge in development capacity librarians , especially in build culture active , collaborative , and sustainable digital communication .

In a way general , results study This show that UNESA librarians have own competence base strong digital literacy in aspects access and analysis , but Still face challenge in matter production digital content , reflection systematic ethics , and participation active in open digital spaces . The difference application of the five elements

This is also influenced by position and responsibility. each librarian's answer in structure organization library .

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