

# Determinants of Online Open Access Databases Towards Academic Career Advancement: A Conceptual Study

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#### Abstract

In this age of modern technology, people worldwide utilise many websites to learn or extract information more about an organisation remotely. Websites are a very effective platform for disseminating information to the public. Most universities use this platform to share information with large audience. The information presented on the official website of an organisation should be relevant, recent, and accessible to the public. These databases are overseen by the academic communities for teaching and learning, research collaboration, and career advancement. This conceptual study aims to explain the importance of a database of lecturers' expertise towards their career advancement. The volume of the database of lecturer expertise described in this study can be divided into two categories: university website and academic staff visibility. Universities must develop a database of these lecturers' expertise which shall be linked to the existing university's website to enable the public to access recent and relevant information. By having dynamic website contents, records related to lecturers' expertise shall be created, read, updated, and deleted (CRUD) from time to time.

Keywords: Website; Database; Lecturer expertise; Staff visibility

#### **INTRODUCTION**

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The global pandemic situation has made the technology connection of the internet and database information as an essential part of the academic profession. The Internet has rapidly become the first place that every academic will

search for dispatch due to movement restriction. Furthermore, different aspects of online database usage have increasingly become the focus of attention for research communities around the world (Dukic, 2013). Globally, online databases are major achievements in information and communication technologies (ICT) development that have seen fundamental changes in the way information is gathered, organised, stored, accessed, distributed, and used. Accordingly, online databases are organised sets of data in which each unit is marked and described in the same way (Koprivica & Grabovac, 2010).

Academicians needs to discipline their efforts to create authoritative, collaborative, online information resources and databases overseen by academic communities for teaching and learning, research collaboration, and career advancement.



Many universities have adopted their institutional open-access database systems; however, this is insufficient to create career advancement opportunities due to the complicated design and lack of updated data.

This research expands on previous research on the importance of a database, assessing lecturers' competency in a university or organization. The purpose of the following subtopic is to emphasize the significance of academic visibility in lecturers' professional careers and the impact of expert exposure on an institution's overall reputation. The databases for storing lecturer expertise data can be deduced from earlier studies. To stay up with recent concerns, an organization must examine the need to modernize the expertise database system. Given the importance of online databases as a valuable source of information for academia, this study explores the importance of online open-access databases towards academic career advancement

### LITERATURE REVIEW

### **University Website**

Importance of Incorporating a Lecturer Expertise Database Into the University Website.

The first website, entitled 'The World Wide Web Project', was founded by the CERN scientist, Tim Berner-Lee. The basic concept was to create a mechanism knowledge sharing by scientists in various centres. According to a database maintained by Journal Malaysia, more than 346 million websites were online as of June 2011. According to Bernier et al. (2002), researchers, including those affiliated with university centres, were the first users of this technology. Generally, all universities have well-designed websites that can provide large amount of information to the public, students, and lecturers. Erhan and Semiral (2010) agreed that website designers should take their time to create usable and attractive websites that can fulfil users' needs.

As technology has become a key tool for good teaching (Adonis, 2006), academic institutions must promote and encourage optimisation of Internet technology for information dissemination. Furthermore, websites have turned as an educational medium for universities (Manouselis et al., 2009). Higher education institutions have developed their web portals because universities wish to portray the impression that



they offer the most convenient services and they excel in the field of information technology which allows them to attract high quality students (Lee et al., 2009). Manouselis et al. (2009) termed it as an educational web portal that serves as a gateway to information and services of learning or teaching relevance. The development and maintenance of a web portal are expensive and time-consuming. Therefore, the web portal must be designed accordingly to achieve its optimum use.

Creating a website for dissemination of information to the public simplifies the design of a few important contents. People who visit the websites of universities centre are classified into different profiles based on the information and services that they seek. Some of the examples of website content include profiles of students, lecturers or researchers, administrative staff, and other visitors who visit the web site from time to time (Bernier et al., 2002). In addition to providing information about teaching and learning, a university website should highlight important details such as information about databases of lecturers' areas of expertise, among other things. Following Hanapiah's (2016) findings, four key elements contributed to lecturers' expertise in higher education institutions: teaching, research publication and writing, and consulting. Teaching is one of the four key elements. According to Janet (2005), university administrators believe that most faculty members will spend their professional lives engaged in three primary activities which are research, teaching, and service.

Information management system is linked to the emergence and implementation of an appropriate database, which is vital for better planning, decision-making, and outcomes (Adeoti, 1997). The collection of data on the expertise of lecturers is crucial for the university. However, universities must consider how to store these databases for future use effectively. Furthermore, databases on lecturers' expertise assist universities in strategic planning and decision-making processes related to educational management (Hanapiah, 2016). As a result, to achieve effective performance in the institution, a management information system is required. Karim (2011) highlighted that universities must properly manage databases to implement information management systems more effectively. Educational management may anticipate the future need for a trained workforce by identifying the gaps in expertise that need to be filled based on the current databases. Hanapiah (2016) stressed that having an established database of academic staff areas of expertise will benefit the university in terms of planning for new academic staff recruitment in areas of expertise. Consider the scenario where higher education institutions do not maintain systematic records of their areas of expertise: Consequently,



they will have difficulties in formulating and implementing strategic decisions related to academic management in that situation (Fink & Brayman, 2004).

### Importance of Incorporating a Lecturer Expertise Database Into Faculty

In this day and age of instant information, media and public relations have become critical components of any institution, including academic institutions. Developing and maintaining a web portal for a university or faculty is an expensive and time-consuming process. As a result, it is absolutely critical that the web portal to be structured in such a way as to provide maximum and optimum utility and usage. Academic transactions and online research are components featured in the faculty portal part of the University of the East-Manila website (Bringula & Basa, 2011). Academicians could use this platform to expand their knowledge, skills, and professions. According to Hanafiah (2016), a non-uniform record-keeping system in a faculty will cause issues when information and reporting when they are required. By developing databases for academic staff's areas of expertise, it is possible to assist faculty in maintaining records in a systematic and uniform manner, guided by the guidelines provided.

These expert databases can also be used for the advantage of the faculty itself as well as for the benefits of university administration. Faculty would also benefit immensely from these databases' establishment since it would provide them with more opportunities to demonstrate and promote their research and expertise (Keyser, 2006). According to the University of South Carolina's faculty, these expertise databases enable users to quickly retrieve faculty members, view resumes, learn about research areas, and collaborate with researchers. The expertise database is being developed to facilitate research cooperation, foster research connections and collaborations across universities and the state as well as to highlight the breadth of knowledge and skills available among the University of South Carolina faculty members.

Recent academic positions, credentials, professional expertise, supervision, research, consultation, and publication components could all be relevant and significant factors to consider when establishing areas of expertise. Criteria in a designated area of expertise can also serve as a guide for faculty management in recording the areas of expertise of their respective faculties' academic staff, as highlighted by Hanafiah (2016).



## Academician Visibility

### Recognition and Invitation

The rapid expansion of the international higher education system has put strain on colleges and universities. A growing number of universities are competing for a limited pool of talent and funding. Thus, raising the institution's profile is critical in today's competitive climate (Guss, 2020). Academic visibility is one of the approaches to improve an institution's profile. Visibility in academia is said to occur when people recognise academicians' names, familiar with their work, and value their scholarly contributions. According to Chukwuemeka (2020), academic visibility, alternatively referred to as academic external inlinks, is a measure of the total number of unique external links (inlinks) received for academic purposes, which are either owned or managed by an institution that provides research and other information services via electronic document archiving. Peer acknowledgment in the academic or intellectual communities is the foundation of academic exposure which leads to recognition, renown, awards, and even status. Invitations as seminar presenters at universities or conferences, attracting good students, gaining internal and external research funding and departmental expansion as a result of higher enrolments are just a few of the advantages of academic visibility.

As Bandura (2009) pointed out, the presence of a lecturer at a conference will make the content more accessible and stimulate discussion among the attendees about the issue being discussed and presented. For the time being, online forums are also becoming increasingly popular to disseminate information to general public. Furthermore, this social platform serves as avenues for direct communication with other people, both socially and through the media. It plays a significant and influential role in decision-making in various contexts from the global world, including economic, political, social, and educational situations (Al-Rahmi & Othman, 2013). As a result, faculty, and staff members of universities are encouraged to participate in any sharing sessions actively, such as conferences, colloquia, and other similar events organised both locally and internationally to increase their academic visibility. Aside from that, it will also indirectly raise the level of competence of lecturers in a given institution's education system. Competence is a quality that undergirds lecturers' work and it is



associated with the effectiveness of an individual's performance in their career (Rahardja et al., (2020).

### Research Funding

Other than that, lecturers must achieve high-performance levels through research to increase their academic visibility (Rahardja et al., 2020). With this academic visibility, they will obtain internal and external research funding due to an increase in this area of research. There are various benefits gained through research funding. According to Salter and Martin (2001), with this research funding, the financed study can be used more extensively, particularly in social benefits. As a result, the government's provision of grant funding to any university will encourage the highimpact research that the university can contribute to society. This contribution will indirectly create a higher level of the university (Rahardja et al., 2020). Furthermore, R&D spending represents a modest part of society's investment in activities that potentially promote innovation in general. The public-funded research generally aimed to evaluate a more widely conceived idea of the effect, which examined many dimensions of the economic, social, and environmental returns (Donovan, 2008). The end-users such as governments, individuals, consumers, businesses, industries, community groups, NGOs, and practitioners can benefit from these research grants funding.

### Marketability of University Program

Apart from the high marketability of university programmes, higher learning institutions must retain academic visibility to entice the general public to choose their preferred institutions of higher learning as their place of study. According to Su and Wood (2012), from the students' perspective, a successful university lecturer is described by a combination of topic knowledge and readiness to support and inspire approaches. With the existence of academic visibility, the institution will be able to attract international and local students. For instance, students will find qualified lecturers to supervise their studies, particularly at the masters and doctoral levels. According to Ives and Rowley (2005), students who felt engaged in supervisor selection had their topics aligned with their supervisor's expertise and they can develop positive interpersonal working relationships. Their supervisors are more likely to make progress and be satisfied. The choice was more likely when supervisors themselves are senior



academics with experience. With academic visibility, the number of postgraduate students who enrol in a university will indirectly increase, and the level of a university should correspondingly increase as well. Universities can connect with students in a variety of ways, including through their websites. Karani et al.,(2021) conducted a study and assess the usability of Gujarat Technological University's website from the perspective of students and determine its relationship with satisfaction. The study revealed that all four dimensions of website usability were positively associated with satisfaction, with content, organization, and readability having the greatest impact, followed by user interface design, performance and effectiveness, and navigation and links. In order to increase student satisfaction with the website, the university needs to keep up-to-date content, organize it well, and make it readable for them.

In relation to academic visibility, Mauvais-Jarvis (2016) has emphasised the importance of visibility at the national, international, and local levels. Productivity, which is attained through publications, is undoubtedly the most important contributor to academicians' national and international recognition. Publications in high-impact journals provide a natural boost in visibility. The weighted count of articles is a measure of the quality of the work and the author's exposure, based on journal prestige or impact factor as well as citation counts. Dang (2017) in his study on the role of academic libraries in enhancing research visibility of academics suggested libraries' roles in promoting the quality of research of these academicians in order to increase their research visibility.

### Industry Collaboration

There are numerous ways to achieve academic visibility, one of which is through collaboration. Collaboration is essential in the circle of activities of researchers in order to advance and expand knowledge. They offer a diverse approach, additional knowledge, and data that can be replicated. Reputable partners will also assist academicians to becoming more visible in their fields of expertise. Collaboration in research has become increasingly common, as evidenced by the rise in co-authored publications (Kyvik, 2013). Besides collaboration with reputable partners, Calver (2021) stated ways in which authors and publishers can partner to increase the visibility of papers. One of the most important services provided by publishers is registration with the International DOI Foundation (IDF) or Crossref, which allows them to provide DOIs to publish papers or book chapters. The main benefit is that once a publication is



assigned a DOI, it may be found online via content providers without the risk of broken connections. DOIs also allow publishers to readily track download records of individual papers and share this information online, and generally save time in literature searches (Meadows & Haak, 2018).

Apart from collaboration, social media can also be utilised to boost academic visibility. Social media has become an almost indispensable element of academic life as a tool for academic networking, and its value varies depending on the position within the profession. The majority now have active websites and blogs. Many of them may also have links to other types of media, such as video channels, where they post regular updates on their activities. For quite some time, the advanced and improved usage of social media platforms like Facebook, Twitter, and Instagram has become a worldwide phenomenon. People all over the world have become glued and attached to the internet, resulting in more researchers using social media platforms than ever before. Nwachi and Igbokwe (2019) affirmed that using social media platforms can improve and enhance research visibility and publicity, and thus emphasising the need of using social media platforms to increase research visibility and publicity of academicians' works in academic institutions.

Furthermore, participation in social obligations might help to raise academic visibility. The concept of social responsibility is primarily promoted by large multinational and transnational firms, and it is currently on everyone's corporate agenda. However, it has also become a major concern for academic institutions. Universities, as educational institutions, play critical roles in society's development and advancement, contributing to publics' well-being. Higher education institutions have recently drawn attention to the role they can and should play in the development of civic ideals and duty (Colby et al., 2000). According to a study conducted by Nejati, Shafaei, Salamzadeh & Daraei (2011), all of the world's top ten universities are involved in social responsibility and sustainability concerns in some form and publicise it on their websites.

Academicians can also increase their visibility by collaborating with industry. The advantages are numerous which include improved research and innovation through joint research projects, delivery of innovative commercial products, improvements in teaching, learning, and enrichment of students' knowledge and employability, and the provision of new funding streams to tertiary institutions (Mustafa, 2019). It has long



been practiced by researchers to conduct study and publish their findings in journal bodies in order to get attention both locally and worldwide. Academicians should, however, consider how to make their products visible in the market and reach the end users through commercialisation, and universities need industry players to play their part in realising products' potential.

## CONCLUSION AND RECOMMENDATION

Based on this discussion, it is possible to conclude that the importance of a databases of lecturers' expertise is very broad and it significantly impacts the management system in any university organisation. Teaching, research publication and writing, and consulting are four key components contributing to lecturers' expertise in higher education institutions. The presence of effective database systems can increase the visibility of lecturers throughout the comity of nations. The database system linked to the university website can be widely accessed by other people other than the internal organisation. Academicians' visibility has a variety of interests. People are said to be visible in academia when they recognise academicians' names, are familiar with their work, and value their scholarly contributions. Academic exposure is built on peer recognitions in the academic or intellectual communities, which leads to glory, renown, awards, and even status. Invitations to speak as a seminar presenter at universities or conferences, attracting good students, obtaining internal and external research funding, and departmental expansion resulting from higher enrolments are just a few of the benefits of academic visibility, as we have elaborated earlier.

However, most universities provide static information about lecturers' expertise, and this information is rarely updated and sometimes irrelevant to current market needs. Some important information have been excluded and they cannot be sought easily. The information published on the websites could be irrelevant and outdated because the publishing content uses static webpages, making it difficult to be updated regularly. In addition, some crucial information about the expertise is not published. Every university needs to create a mechanism to enable up-to-date and relevant information on lecturers' expertise. The data is important to allow the public to extract this information from these organisations' official websites. By linking a database to store and manage lecturers' expertise to the existing webpage could overcome this problem. These



features shall allow the lecturers to update their recent publications, consultation works, and other activities related to their expertise.

## REFERENCES

- Adeoti Adekeye, W. B. (1997). *The Importance of Management Information Systems*. Library Review.
- Al-Rahmi, W., & Othman, M. (2013). The Impact of Social Media Use on Academic Performance Among University Students: A Pilot Study. *Journal of Information Systems Research And Innovation*, 4(12), 1-10.
- Bernier, J. L., Barchéin, M., Cañas, A., Gómez-Valenzuela, C., & Merelo, J. J. (2002). The Services a University Website Should Offer. Information Society and Education: Monitoring a Revolution. Serie Sociedad de la Educación, 9, 1746-1750.
- Bandura, E. (2009). Speaker's Roles and Responsibilities in Academic Discourse. Dialogue in Foreign Language Education, 20.
- Bringula, R. P., & Basa, R. S. (2011). Factors Affecting Faculty Web Portal Usability. *Educational Technology & Society*, 14 (4), 253–265.
- Calver, M. (2021). Visibility of Published Papers: A Collaboration Between Authors and Publishers. *Pacific Conservation Biology*, 27(2), 101-103.
- Chukwueke, C., Nnadozie, C. D., & Okafor, V. N. (2020). Enhancing Academic Visibility of Faculty Members in Nigerian University Community: The Role of Institutional Repositories. *International Journal of Research and Scientific Innovations*, VII, 87-94.
- Dang, T. L. (2017). Enhancing Research Visibility of Academics: The role of academic libraries. Information Impact: Journal of Information and Knowledge Management, 8(2), 48-54.
- Donovan, C. (2008). The Australian Research Quality Framework: A Live Experiment in Capturing the Social, Economic, Environmental, and Cultural Returns of Publicly Funded Research. *New Directions For Evaluation*, 2008(118), 47-60.
- Dukić, D. (2013). Online Databases as Research Support and the Role of Librarians in Their Promotion: The Case of Croatia. *Library Collections, Acquisitions, and Technical Services*, 37(1-2), 56-65.
- *Faculty Expertise Database*. Retrieved from https://sc.edu/about/offices\_and\_divisions /research/faculty\_expertise/expertisedatabase.php.

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- Fink, D., & Brayman, C. (2004). Principals' Succession and Educational Change. Journal of Educational Administration.
- Guss van den Brekel, (2020). Raising the Visibility of Your Institution and Researchers. *Elsevier Connect*. https://www.elsevier.com/connect/library-connect/raising-the-visibility-of-your-institution-and-researchers
- Hanapiah, N. M. (2016). Model Sistem Pengurusan Maklumat dalam Membangunkan Pangkalan Data Bidang Kepakaran Staf Akademik Universiti Teknologi Malaysia.
- Ives, G., & Rowley, G. (2005). Supervisor Selection or Allocation and Continuity of Supervision: Ph.D. Students' Progress and Outcomes. *Studies in Higher Education*, 30(5), 535-555.
- Jones Evans, D., Klofsten, M., Andersson, E., & Pandya, D. (1999). Creating a Bridge Between University and Industry in Small European Countries: The Role of the Industrial Liaison Office. *R&D Management*, 29(1), 47-56.
- Karani, A., Thanki, H., & Achuthan, S. (2021). Impact of University Website Usability on Satisfaction: A Structural Equation Modelling Approach. *Management and Labour Studies*, 46(2), 119-138.
- Karim, A. J. (2011). The Significance of Management Information Systems for Enhancing Strategic and Tactical Planning. JISTEM-Journal of Information Systems and Technology Management, 8(2), 459-470.
- Keyser, C.S (2006). Information Organization in a Faculty Expertise Database (Unpublished master's dissertation). University of North Carolina, Chapel Hill, United States.
- Koprivica, J., & Grabovac, J. (2010). Search of Online Data Base and Information Retrieval: One Year Experience in Work of the Library of Clinical Centre University in Sarajevo. Acta Informatica Medica, 18 (2), 100–108.
- Kyvik, S. (2013). The Academic Researcher Role: Enhancing Expectations and Improved Performance. *Higher Education*, 65(4), 525-538.
- Mauvais-Jarvis, F. (2016). Developing Academic Visibility in the Medical Sciences. Ochsner Journal. September 2016, 16 (3) 208-209
- Meadows, A., & Haak, L. (2018). How Persistent Identifiers Can Save Scientists Time. *FEMS Microbiology Letters*, 365(15).
- Moore, J. (2005). Seven Recommendations for Creating Sustainability Education at The University Level. *International Journal of Sustainability in Higher Education*.

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- Mustafa, Zulita. "Importance of Academia-Industry Linkages. *New Straits Times*, January 23, 2019. https://www.nst.com.my/education/2019/01/453582/ importance-academia-industry-linkages
- Nejati, M., Shafaei, A., Salamzadeh, Y., & Daraei, M. (2011). Corporate Social Responsibility and Universities: A Study of Top 10 World Universities' Websites. African Journal of Business Management, 5(2), 440-447.
- Nwachi, C., & Igbokwe, J. (2019). The Impact of Social Media in Research Publicity and Visibility. *Library Philosophy and Practice (e-journal)*.
- Rahardja, U., Lutfiani, N., Rafika, A. S., & Harahap, E. P. (2020, October). Determinants of Lecturer Performance to Enhance Accreditation in Higher Education. In 2020 8th International Conference on Cyber and IT Service Management (CITSM) (pp. 1-7). IEEE.
- Salter, A. J., & Martin, B. R. (2001). The Economic Benefits of Publicly Funded Basic Research: A Critical Review. *Research Policy*, 30(3), 509-532.
- Su, F., & Wood, M. (2012). What Makes a Good University Lecturer? Students Perceptions of Teaching Excellence. Journal of Applied Research in Higher Education.