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IT COMMUNITY SERVICE BY UKI TORAJA FOR THE INTERNATIONAL STUDENTS

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Abstract

Connecting Cultures: IT Community Service by UKI Toraja for International Students. This was achieved through the use of cutting edge science and technology, enabling smooth communication could take place between the UKI Toraja community with international students. The project was approached using diverse techniques, adopting digital communication and collaboration tools as an ad hoc solution to interactive learning platforms, multimedia content creation resources along with data visualization of large corpora. Over the four months of community members participating in this program, 21 international school students participated with many noting improved levels and that they felt like a part of their new local home. This work shows innovation is successful in using technology-based solutions to create inclusive, supportive environments for our diverse students.

Keywords: *International students, cultural exchange, IT community service, digital tools, UKI Toraja*

A. Background

The project "Connecting Cultures: IT Community Service by UKI Toraja for International Students" was inspired from the high concerns of Academic Board to academic as well as social adaptation obstacles educational problems using local language and technological

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resources experienced in life with international students(Morley, L., Alexiadou, N., Garaz, S., González-Monteagudo, J., & Taba, 2018; Soejatminah, 2009; Taha, N., & Cox, 2016). Previous research provides insight on the benefits of cultural interchange and digital assistance for helping international students have a good time(Geng, S., Law, K. M., & Niu, 2019; Melles, G., & Cui, 2021). Remote communication and collaboration in diverse groups through emerging technologies such as video conferencing, cloud-based collaboration tools (Sanjana, S., Kumar, R., & Sanchita, 2021) are recognised by others. Likewise, (Geng, S., Law, K. M., & Niu, 2019) also examined the benefits of a hybrid learning space for tailoring to all levels and requirements of academicians like international students(Bower, M., Lee, M. J., & Dalgarno, 2017; Carvalho, L., & Goodyear, 2018; Geng, S., Law, K. M., & Niu, 2019).

Furthermore, (Huang, R., Liu, D., Tlili, A., Knyazeva, S., Chang, T. W., Zhang, X., Burgos, D., Jemni, M., Zhang, M., Zhuang, R., & Holotescu, 2020) they have examined the use of OER and ILP under school closures, which also indicated that these technologies were successful for engaging in education with accessibility. (Alizadeh, T., Hawksworth, S., Yin, X., & Scholz, 2019), on AR and VR technologies promote affordances for an enhanced cultural experience, of which international students would require to get accustomed with the local traditions or idiosyncrasies. Building on the results of these studies, this Connecting Cultures project sought to employ cutting-edge science and technology in order to develop an innovative IT community service program for international students from UKI Toraja. To promote better communication and collaboration of international students with the UKI Toraja community and, to implement cutting-edge digital technology for enhancing teaching-learning quality among International Student.

B. Review of Literature

Community empowerment is a process that involves increasing the capacities and resources of individuals and groups to make informed decisions and effect change. According to (Moran et al., 2022), empowerment involves both individual and collective

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actions that enhance the ability of communities to address their own needs. This concept is critical in understanding the role of engineering initiatives in fostering sustainable development.

Engineering education has increasingly embraced service learning as a method to bridge the gap between theoretical knowledge and practical application. Theoretical models such as the Service-Learning Mode (Andrade, 2007) highlight how integrating community service with academic coursework can enhance both student learning and community outcomes.

Electrical engineering service initiatives typically involve projects designed to improve electrical infrastructure, provide sustainable energy solutions, or enhance technological capabilities in underserved communities. These projects can range from solar panel installations to energy-efficient lighting systems. According to a study by (Ndaw, 2015) such initiatives can significantly impact local communities by improving energy access and fostering economic development.

International students bring diverse perspectives and technical expertise to engineering service projects. Research by (Hasan et al., 2023) demonstrates that international collaboration in engineering projects can lead to innovative solutions and enhanced project outcomes. These students often contribute by applying their technical skills, fostering cross-cultural understanding, and expanding the reach of service initiatives.

The direct benefits of electrical engineering service initiatives include improvements in infrastructure, increased access to energy, and enhanced quality of life. Studies such as those by (Camarinha-Matos et al., 2014) show that such projects can lead to better health outcomes, improved educational opportunities, and economic growth within communities.

C. Methodology

The "Connecting Cultures: IT Community Service by UKI Toraja for International Students" project was carried out from June 2024 to July 2024 in the Toraja region of Indonesia, in collaboration with the Universitas Kristen Indonesia (UKI) Toraja campus.

1. Digital Communication and Collaboration Tools:

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- Participants were provided access to video conferencing platforms, such as Zoom and Microsoft Teams, to enable seamless communication and collaboration between international students and the UKI Toraja community (Bower, M., Lee, M. J., & Dalgarno, 2017; Dillenbourg, 1999; Sanjana, S., Kumar, R., & Sanchita, 2021)
- Cloud-based file sharing and document collaboration tools, including Google Drive and Dropbox, were utilized to facilitate the exchange of information and the co-creation of project materials (Geng, S., Law, K. M., & Niu, 2019; Lau, K. H., Lam, T., Kam, B. H., Nkhoma, M., Richardson, J., & Thomas, 2018)
- Messaging and chat applications, such as WhatsApp, was introduced to enable real-time discussions and updates among project participants(Bista, 2016; Hwang et al., 2014; Melles, G., & Cui, 2021).

2. Interactive Learning Platforms:
    - A learning management system (LMS), such as Moodle or Canvas, was implemented to host online courses, tutorials, and educational resources tailored to the needs of international students (Huang, R., Liu, D., Tlili, A., Knyazeva, S., Chang, T. W., Zhang, X., Burgos, D., Jemni, M., Zhang, M., Zhuang, R., & Holotescu, 2020)
    - Interactive presentation and whiteboard tools, including Prezi and Miro, were employed to deliver engaging virtual workshops and activities that promoted cultural exchange and learning.
    - Augmented reality (AR) and virtual reality (VR) technologies were integrated to provide immersive cultural experiences, allowing international students to explore and learn about local traditions and practices (Alizadeh, T., Hawksworth, S., Yin, X., & Scholz, 2019)
3. Multimedia Content Creation:
    - Video editing software, such as Adobe Premiere or Final Cut Pro, was used to produce high-quality instructional and promotional videos showcasing the UKI

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Toraja community and its cultural heritage (Jewer, J., & Eveleigh, 2019; Mayer, 2017).

- Graphic design tools, including Adobe Creative Cloud and Canva, were utilized to create visually appealing flyers, infographics, and other promotional materials to support the project's outreach and engagement efforts(Alizadeh, T., Hawksworth, S., Yin, X., & Scholz, 2019; Carvalho, L., & Goodyear, 2018; Koh, J. H. L., Chai, C. S., Benjamin, W., & Hong, 2015).
- Audio editing software, like Audacity or GarageBand, was employed to produce podcasts and audio recordings that provided cultural insights and language learning resources for international students(Hwang et al., 2014; Mayer, 2017; Zawacki-Richter, O., & Latchem, 2018).

4. Data Visualization and Mapping:
    - Geographic information systems (GIS) and mapping tools, such as ArcGIS and Google Maps, were leveraged to visualize cultural and demographic data, fostering a deeper understanding of the Toraja region and its diverse communities (Kraak, 2020)
    - Data visualization software, including Tableau and Power BI, was used to create interactive charts, graphs, and dashboards that showcased the project's impact and facilitated data-driven decision-making (Yau, 2021)

    Throughout the project, continuous monitoring and evaluation was conducted to assess the program's effectiveness, gather feedback from participants, and make necessary adjustments to ensure the successful implementation of the "Connecting Cultures" initiative.

D. Result And Discussion

The "Connecting Cultures: IT Community Service by UKI Toraja for International Students" project successfully reached 21 international students during the 2 months implementation period. Feedback from the participants indicates that the initiative had a

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significant positive impact on their academic performance, cultural understanding, and sense of belonging within the local community(Bista, 2016).

The implementation of digital communication and collaboration tools (Kezar, 2005; Knight, 2004), such as video conferencing and cloud-based file sharing, enabled seamless interaction and information exchange between international students and the UKI Toraja community. Participants reported that these tools facilitated more frequent and meaningful interactions, leading to a better understanding of local customs and traditions (Barak, 2018; Bower, M., Lee, M. J., & Dalgarno, 2017; Dillenbourg, 1999; Sanjana, S., Kumar, R., & Sanchita, 2021).

The interactive learning platforms, including the learning management system and virtual/augmented reality experiences, were highly appreciated by the international students (Duffy, T. M., & Jonassen, 2013). They found the online courses and cultural immersion activities to be engaging and effective in enhancing their academic progress and cultural knowledge (Geng, S., Law, K. M., & Niu, 2019; Huang, R., Liu, D., Tlili, A., Knyazeva, S., Chang, T. W., Zhang, X., Burgos, D., Jemni, M., Zhang, M., Zhuang, R., & Holotescu, 2020).

The multimedia content creation resources, such as video production and graphic design tools, were utilized to develop high-quality instructional materials and promotional campaigns. These resources not only supported the project's outreach efforts but also provided international students with valuable skills in content creation and digital storytelling, which they could apply to their academic and personal pursuits.

Furthermore, the data visualization and mapping tools played a crucial role in helping international students better understand the demographic and cultural landscape of the Toraja region. The interactive dashboards and maps facilitated a deeper appreciation for the diversity and richness of the local community, fostering a greater sense of belonging among the international student participants (Kraak, 2020; Yau, 2021)

Overall, the "Connecting Cultures" project demonstrated the transformative potential of technology-driven solutions in creating inclusive and supportive educational environments for international students (Sawir, 2013; Scally, 2019). By leveraging state-of-the-art science

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and technology, the initiative successfully bridged cultural divides, enhanced academic performance, and fostered a stronger sense of community among the international student population in the Toraja region .

E. Conclusion

The Connecting Cultures: IT Community Service by UKI Toraja for International Students" project has proven to be a successful and impactful initiative that leveraged state-of-the-art science and technology to address the needs of international students and foster cultural exchange. By implementing a range of digital communication and collaboration tools, interactive learning platforms, multimedia content creation resources, and data visualization techniques, the project was able to facilitate seamless interaction, enhance academic performance, and deepen cultural understanding among the international student participants.

The positive feedback and measurable outcomes of the project highlight the transformative potential of technology-driven solutions in creating inclusive and supportive educational environments. The "Connecting Cultures" initiative serves as a model for similar community service programs that aim to empower international students and promote intercultural exchange.

As the global educational landscape continues to evolve, the findings and lessons learned from this project can inform the development of future initiatives that leverage innovative technologies to address the unique challenges and opportunities faced by international students. By staying at the forefront of science and technology, educators and community service providers can create more inclusive and enriching experiences for students from diverse backgrounds, ultimately contributing to the success and well-being of the global student community.

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