

Accelerating Digital Transformation With ScienceDirect eBooks



About UTHM

Universiti Tun Hussein Onn Malaysia (UTHM) is one of Malaysia's public universities that primarily focuses on Engineering and Technology and is categorized under the Malaysian Technical University Network. It aspires to lead in market oriented academic programmes which are student-focused through experiential learning pedagogies.

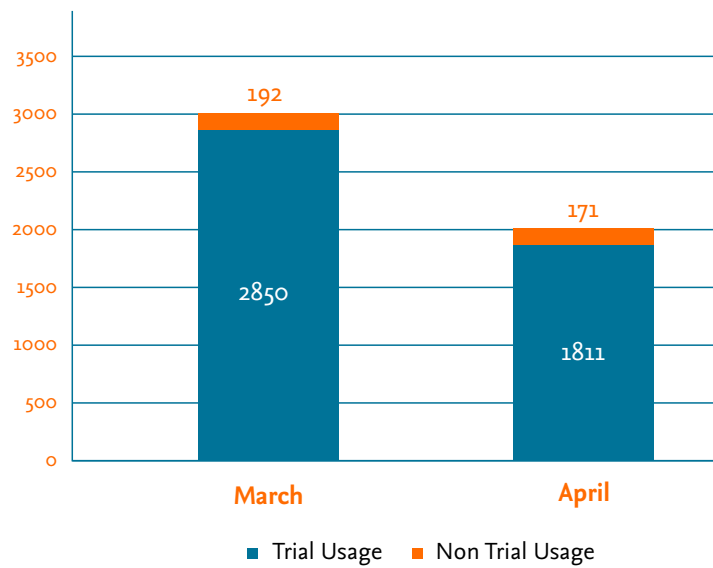
The university is rated a five-star institution by the QS Stars Rating in the categories of Teaching, Employability, Online Learning, Innovation, and Inclusiveness. It was also awarded for its Programme Strength in Civil Engineering.

As a Premier Digital Tech Institution (PDTI), UTHM has always been on the forefront of digitalization through collaboration and industry partnership. Its recent digitalization efforts were partnered with Elsevier to explore the digitalisation of e-Books content on ScienceDirect platform towards both research and teaching & learning needs. The overall results have been encouraging, with positive feedbacks received on the usefulness and usability of ScienceDirect content for faculties curriculum development needs.

A Triumphant Trial

The Faculty of Engineering Technology at UTHM was chosen as the trial faculty due to its multi-disciplinary nature and the broad spectrum of engineering modules offered. The subjects covered included Engineering, Chemical Engineering, Materials Science, and Agricultural, Biological and Food Sciences. A total of nine lecturers and 169 students participated in the trial.

The project spanned over six months, commencing



from end November 2021. A pre-trial survey was conducted, the result of which showed that 78% of participating lecturers were frequent ScienceDirect platform users while 44% of participating students used the ScienceDirect platform frequently.

The result of the post-trial survey showed a whopping increase of 1,184% and 1,100% in ScienceDirect eBooks usage in UTHM during the trial period of March and April 2022 respectively.

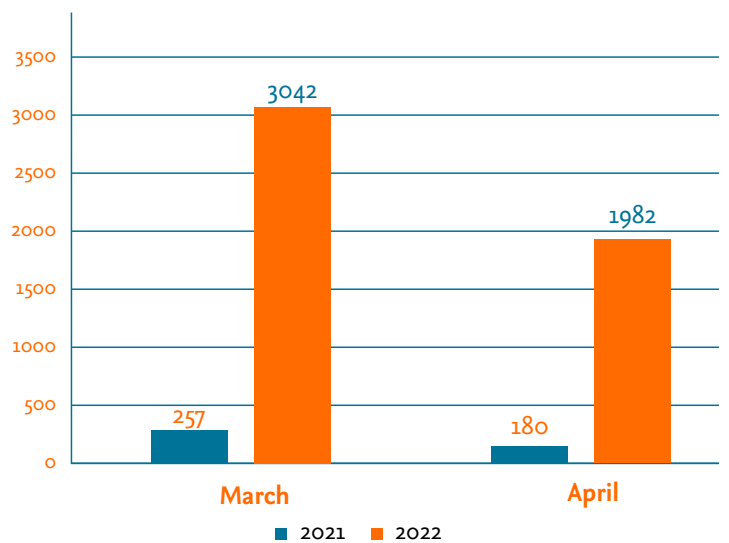
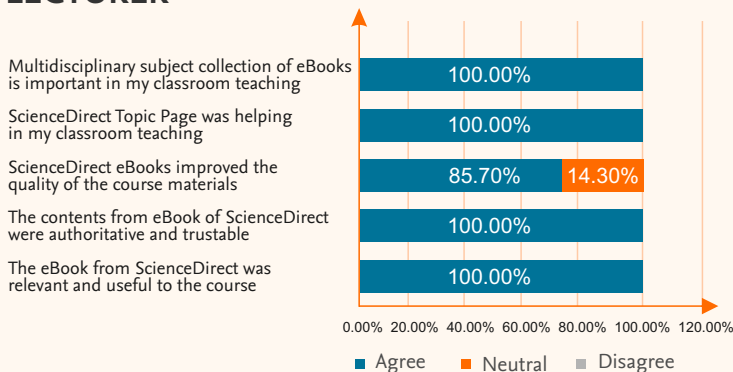


Figure 1: Usage comparison between pre & post trial

Additionally, 100% of the participating lecturers and 95% of the participating students indicated that they have benefitted from the eBooks access provided during the trial period and subsequently recommended the subscription of ScienceDirect eBooks in UTHM.

The post-trial survey analysis also reflected several other positive feedbacks on ScienceDirect eBooks, as shown in Figure 2.

LECTURER



STUDENT

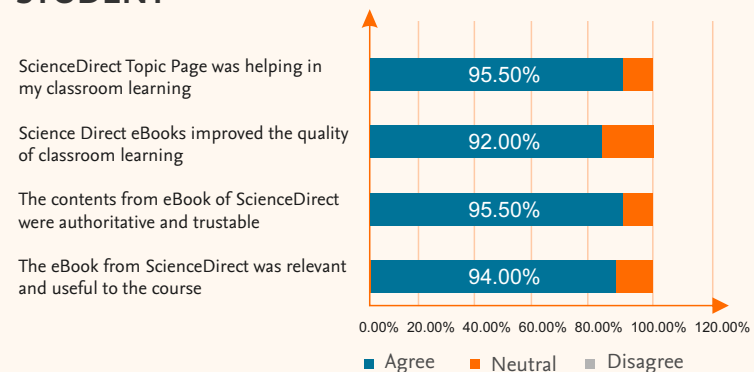


Figure 2: Post-trial survey results

Embracing ScienceDirect eBooks at UTHM

What drove UTHM to adopt ScienceDirect eBooks? Firstly, using ScienceDirect eBooks is very much in line with UTHM's digitization strategy, which focuses on meeting the needs of its academic community today and for generations to come.

"This means future-proofing our knowledge repository by looking beyond modernizing workflows and operations," says Professor Ts. Dr. Ruzairi bin Abdul Rahim, Vice-Chancellor of UTHM. "We need to ask ourselves questions such as what will the classrooms of

the future look like, how can we improve student learning experiences, and what tools can we use to improve collaboration and research outcomes. ScienceDirect eBooks tick many of the boxes, especially when it comes to teaching and research."

And with the vast amount of misleading information and misinformation available online, the quality of students' research work can be potentially affected if they are not provided with credible sources.



“That's why we wanted to provide our students and faculty with an authoritative and scholarly one-stop portal for their research work. With ScienceDirect, students can easily find relevant information from various trusted interdisciplinary sources. Moreover, ScienceDirect eBooks support our virtual learning initiatives.”

Mdm. Zaharah binti Abd Samad

Chief Librarian of UTHM.

Achieving a Blended Learning Model

Driven by the pandemic, home-based learning (HBL) has become the new normal, and digital learning continues to have its place in post-pandemic higher education. Looking at the trajectory, it is unlikely that

things would go back to pre-COVID-19 times when primarily face-to-face classes were conducted. A blended/hybrid learning method is more likely to be the adopted pedagogy.



“A blended learning approach is more holistic, allowing students to develop self-learning skills as they prepare for their respective classes while guided by their professors. This is

where essential soft skills such as time management, resourcefulness, analytical thinking and the ability to collaborate are acquired,” explains Professor Ts. Dr. Azme bin Khamis, Deputy Vice-Chancellor (Academic and International) of UTHM. “At the same time, we want to prepare our students to be future-ready digital learners.”

Professor Ts. Dr. Azme bin Khamis

Deputy Vice-Chancellor (Academic and International) of UTHM.

However, integrating digital educational technology into classroom learning requires more comprehensive thoughts and care, especially when introducing a technological ecosystem and key platforms that can optimize learning and improve access to knowledge repositories.

“While exploring ways to enhance our virtual learning environment, we found that Elsevier’s high-quality

ScienceDirect eBooks stand out as a key enabler. It allows our growing community of interdisciplinary researchers to access extensive foundational knowledge and the latest scholarly insights, which enrich the university’s research and academic culture,” adds Professor Ts. Dr. Ruzairi bin Abdul Rahim. “We believe collaborating with leading industry partners like Elsevier accelerates the momentum in building our virtual university and strengthens our knowledge assets.”

Accessibility – ScienceDirect eBooks' Winning Factor

ScienceDirect is a leading discovery platform of peer-reviewed literature from over 2,650 Elsevier journals and 35,000 e-books, including thousands of open access articles. We also created ScienceDirect Topics, a free layer that provides authoritative introductory overviews to help students understand and interpret scientific literature, and there are over 360,000 topic pages across 20 subject disciplines available, generated using innovative and automated technology for information extraction.

One of the critical factors identified in this trial was accessibility. Based on the result of the post-trial survey, about 78% of UTHM lecturers and 85% of students found eBooks more accessible compared to printed books. Students and faculty could access thousands of scholarly literature across a broad and diverse range of scientific disciplines through one convenient access point, whether they are in school or at any remote location.

"During the trial, we found that lecturers used ScienceDirect's multi-disciplinary collection of eBooks to improve their classroom teaching and course materials. Likewise, students used ScienceDirect as a trusted source of information for their assignments and project work," indicates Mdm. Zaharah binti Abd Samad. "What helped tremendously was the training provided by Elsevier's support team to our lecturers. It showed them how they could optimize their use of ScienceDirect eBooks in their teaching and curriculum."

"The eBooks provided are very good and thoroughly cover the course content," adds Dr. Nasrul Fikry, Lecturer of Faculty of Engineering Technology, UTHM.

From the students' point of view, ScienceDirect eBooks offered a more efficient way to navigate the vast amount of information available out there.

"I find that it is more effective to use ScienceDirect eBooks. My friends and I are able to find the information we need faster and more easily, especially when we are looking for specific content or resources. It makes classroom learning easier for us," says Thivya, student of Faculty of Engineering Technology, UTHM.



“We need to ask ourselves questions such as what will the classrooms of the future look like, how can we improve student learning experiences, and what tools can we use to improve collaboration and research outcomes.

ScienceDirect eBooks tick many of the boxes, especially when it comes to teaching and research.”

Professor Ts. Dr. Ruzairi bin Abdul Rahim
Vice-Chancellor of UTHM

Looking Ahead

The trial's success is a welcome development for UTHM, as it has set a goal of becoming a global technopreneur university by 2030, and the collaboration with Elsevier will help to facilitate better learning outcomes and drive meaningful experiences amongst its students, teachers and staff.

"In the next three to five years, we'll probably see more lecturers adopting e-curriculum. By then, we would also have developed comprehensive strategies to support students and lecturers in the blended learning model and grow our eBook collection," explains Professor Ts. Dr. Azme bin Khamis. "And I believe ScienceDirect will play a significant role in UTHM's broader digitalization strategy."

"Our students, faculty and staff are at the heart of UTHM's digital transformation. It will help us better support and address the needs of our academic community – not just for today, but for years to come," concludes Professor Ts. Dr. Ruzairi bin Abdul Rahim.

About ScienceDirect

Built on the widest range of trusted, high-quality, interdisciplinary research, ScienceDirect helps researchers find answers to their most pressing research questions, stay on top of their field and gain in-depth insights into trending research topics as they take their next steps in discovery.

There are now more than 41,000 books on ScienceDirect, showcasing the knowledge and expertise of more than 1 million respected authors from countries around the globe. Our book titles include textbooks, monographs, books series and handbook volumes as well as major reference works – all carrying the reassuring quality stamp of peer review.

Improve your research performance today. Anyone can use ScienceDirect to access, explore, discover, read and save research. Let ScienceDirect take you to the research that brings answers.

Become a ScienceDirect registered user

<https://bit.ly/3M2VH3r>

Elsevier Offices

ASIA AND AUSTRALIA

Tel: +65 6349 0222

JAPAN

Tel: +81 3 5561 5034

KOREA AND TAIWAN

Tel: +82 2 6714 3000

EUROPE, MIDDLE EAST AND AFRICA

Tel: +31 20 485 3767

NORTH AMERICA, CENTRAL AMERICA AND CANADA

Tel: +1 888 615 4500

SOUTH AMERICA

Tel: +55 21 3970 9300