

TRANSFORMATION 2050 :

**THE ALTERNATIVE FUTURES
OF
MALAYSIAN UNIVERSITIES**

3.595
OH

SOHAIL INAYATULLAH & FAZIDAH ITHNIN



TRANSFORMATION 2050:

THE ALTERNATIVE FUTURES OF MALAYSIAN UNIVERSITIES

SOHAIL INAYATULLAH
FAZIDAH ITHNIN

USIM PRESS

Universiti Sains Islam Malaysia

Bandar Baru Nilai

Negeri Sembilan

2018

PUSTAKA PERDANA



1011629



First Published in 2018
© Universiti Sains Islam Malaysia

All rights reserved; no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission from USIM press.

Published in Malaysia by:

USIM PRESS
Universiti Sains Islam Malaysia
71800 Bandar Baru Nilai
Negeri Sembilan Darul Khusus
Tel: +606-798 8226/6081 Faks: +606-798 6083
www.penerbit.usim.edu.my
info.penerbit@usim.edu.my

**USIM PRESS is a member of the
MALAYSIAN SCHOLARLY PUBLISHING COUNCIL (MAPIM)**

Printed in Malaysia by:

FIRDAUS PRESS SDN BHD
No. 28, Jalan PBS 14/4
Taman Perindustrian Bukit Serdang
43300, Seri Kembangan. Selangor
Tel : 03 – 8940 5595 Faks : 03 – 8940 5595
onlineprint@gmail.com

National Library of Malaysia

Cataloguing-In-Publication-Data

SOHAIL INAYATULLAH

**TRANSFORMATION 2050: THE ALTERNATIVE FUTURES OF
MALAYSIAN UNIVERSITIES / SOHAIL INAYATULLAH & FAZIDAH
ITHNIN**

ISBN 978-967-440-419-2

1. Education, Higher--Malaysia--Aims and objectives.
2. Education planning--Malaysia--Educational innovations.

I. Fazidah Ithin. II. Tilte.

378.595

378.595
15011

CONTENTS

FOREWORD	7
PREFACE AND ACKNOWLEDGEMENTS	11
LIST OF ACRONYMS	13
INTRODUCTION	15
CAN MALAYSIAN HIGHER EDUCATION TRANSFORM? <i>Fazidah Ithnin & Sohail Inayatullah</i>	

SECTION 1

CHAPTER 1	20
Transforming Public Institutions: Application of Mapping the Future Methods in the Transformation Process of Public Institutions in Malaysia: Some Conclusions <i>Azhari-Karim</i>	
CHAPTER 2	34
Future Scenarios for Universiti Teknikal Malaysia Melaka (UTeM) – Perspectives of a Technical-Focused University <i>Fazidah Ithnin, Shahrin Sahib, Mohd Jailani Mohd Nor & Mohd Rahimi Yusoff</i>	
CHAPTER 3	51
Transformative Foresight: Universiti Sains Malaysia Leads the Way <i>Ellisha Nasruddin, Reevany Bustami & Sohail Inayatullah</i>	

SECTION 2

CHAPTER 4	76
Augmented Reality, The <i>Murabbi</i> and the Democratization of Higher Education: Alternative Futures of Higher Education in Malaysia <i>Sohail Inayatullah & Ivana Milojevic</i>	

CHAPTER 5	102
Leadership and Governance in Higher Education 2025: Can Malaysian Universities Meet the Challenge? <i>Sohail Inayatullah & Ivana Milojevic</i>	
CHAPTER 6	113
Mapping the Futures of Malaysian Higher Education: A Meta – Analysis of Futures Studies in the Malaysian Higher Education Scenario <i>Fazidah Ithnin, Shahrin Sahib, Mohd Jailani Mohd Nor, Raja Safinas Raja Harun, Chong Kuan Eng & Safiah Sidek</i>	
Malaysian Universities in Transformation: Some Conclusions <i>Ahmad Yusoff Hassan</i>	143
LIST OF AUTHORS	147
INDEX	149

FOREWORD

Malaysia is expected to be a “developed nation” come 2020. This is based on the nation’s Vision 2020 strategic plan launched some three decades ago by the then Prime Minister, Mahathir bin Mohamad during the tabling of the Sixth Malaysia Plan in 1991.

The Vision calls for economic prosperity, social well-being, political stability, psychological balance and listed nine challenges that must be met to realise the Vision. Many will have an impact on education in several ways. For example Challenge 6 talks about the need to establish a progressive scientific and technology society, not just for the purposes of consumption, but also to contribute towards advancing civilisation. Others dwell on establishing “a mature democratic society”, “a fully moral and ethical society”, “a matured liberal and tolerant society”, “a fully caring society” – principles that are reflected will in the spirit of the National Education Philosophy.

However, there are no specific references to the future of education per se or as to how education is expected to change over the time period. More worrying is when education has taken a rather different track akin to a neoliberal liberal agenda away from the crux of the National Education Philosophy. While it is fair to say which while education has made some progress, it may not necessarily be in the direction set by the nine challenges in Vision 2020. The recent episodes of rampant corruption could be easily pinned down to the gap in establishing “a fully moral and ethical society” which is the foundation of a good and robust education system. In such situation, to plan for a meaningful future education, higher education in particular, may require some “re-thinking” as to what need to be fixed so that education can play a meaningful role in realising most of the nine challenges, if not all of them. While the Higher Education Blueprint (2015-2025) provides some areas of focus and targets, it too does not present clear scenarios for the future of Malaysian education. This remains a gap that must be filled if the journey to the future is to be the most probable one.

In doing so, I can vividly fall back on my experience at the Universiti Sains Malaysia (USM) when we undergo a full blown scenario planning workshop in 2005. It was successfully conducted by Dr Sohail Inayatullah that paved ways to six very clear and distinct scenarios to choose from in projecting USM futures in 2025. This is a breakaway from the past experience of predicting the future by looking at the “rear-mirror” alone.

Succinctly, the exercise was instrumental in strategizing ahead of time in the effort to clinch the prestigious APEX university bid three years later, giving USM the status of being the only university with such distinction to date. In other words, when thoughtfully applied and executed, scenario planning can give several added advantages in the attempt to shape the future.

Similar advantages can be gleaned from the chapters in this volume. Although the context may not be identical, they can still be beneficial as compared to the outcomes from the conventional method of linear “foresighting”. Indeed, they are of immense value since each of the chapters is written by experienced academic(s) and practitioner(s) who themselves had undergone similar scenario planning workshops. All of them ably captured a number of scenario planning outcomes arising from the workshops on higher education conducted more recently for Malaysia higher education. They involved various stakeholders across the education sector giving readers a rich vista to contemplate and reflect upon in their pursuit for change. More so given the high level of uncertainty that is now engulfing the world today, making scenario planning even more relevant.

As Malaysia is also attempting to embark on another futuristic journey under the banner of Transformasi Nasional 2050 (National Transformation 2050), scenario planning will come in handy. Again this volume can act as the “starter’s kit” in setting up the journey into the future in priming the alternatives for the future of education.

What is clear is that the measurements, standards and even as fundamental as worldwide used currently may, in all probability, be different thirty years on! The conventional normals like “gross domestic products” or “human development index” and the like as often articulated may not be relevant any more for transformational purposes. Already quite recently “happiness” has been used globally to “inform” about the quality of life among nations. This means, unless one can also envisage the “new” rules and standards, and there to set it up as the narratives of tomorrow, the road to transformation can be tricky, if not outright futile.

It is because of this then that alternative futures thinking holds much promise in understanding and securing the future as close as possible as we muddle through in the age of uncertainty. This volume is not only recommended but also timely.

As a closing note, I would like to congratulate all contributors to this volume, and also Dr Sohail Inayatullah - now UNESCO Chair on Futures at Universiti Sains Islam Malaysia (USIM) - for their collective initiatives to collate the various works of significance to be made available for easy reference in moving higher education forward into the 21st century and beyond.

Dzulkifli Abdul Razak
Chairperson, Board of Directors, USIM
5th Vice-Chancellor, USM (2000-2011)



PREFACE AND ACKNOWLEDGEMENTS

This book presents some of the best thinking, globally and nationally, on the futures of higher education in Malaysia. The collated articles in this volume are produced by experts and practitioners of futures thinking based on current scenarios and their anticipation of the preferred future. *Transformation 2050: The Alternative Futures of Malaysian Universities* sums up the critical relevance of designing the desired future using the six pillars approach – encouraging university leaders to envision best-case scenarios involving university leadership, teaching and learning, students and academics. The current pushes of the future, the apprehensions of the fourth industrial revolution which hails new digital technologies and heightens globalization in every aspect, calls for the Malaysian Higher Education to respond in ways that enhance the system and effectuate the nation’s aspiration of a fully developed nation in 2020.

This comprehensive volume also sheds light on concerns of whether Malaysian professors and lecturers can move from the conventional lecture and exam model academics to becoming *murabbis* who take on a more holistic pedagogy, utilizing adept skills and expertise to protect, grow, give love, teach, educate, nurture and preserve the nature of students and to develop their talents and abilities that exist within them. Participants in workshops argued that *murabbis* is the preferred future for the academic in 2025. *Murabbis* are role models; they are depicted in the Quran as thinkers with the ability to impart personalized knowledge because a *murabbi* is not merely a facilitator, but he or she is more of an exemplary human being – an ideal Muslim. Along with the transformation of the academic to the *murabbi*, many other essential aspects of higher education evolution are highlighted in the book. The chapters hold the key to understanding the Malaysian higher education landscape with a purview of emerging as an international education center, using foresight for capacity building and strategic planning.

We would like to thank Tan Sri Dzulkifli Abdul Razak for his unwavering conviction of the significance of futures-oriented thinking and planning has resulted in the insemination of foresight works within the higher education league. Our sincere thanks to contributing authors whose articles have made up this compendium: Ahmad Yusoff Hassan, Azhari Karim, and Elisha Nasruddin. Finally, we would like to thank colleagues and publishers for

permission to reprint co-authored articles. As noted below, they include Ivana Milojevic, Shahrin Sahib, Mohd. Jailani Mohd Nor, Mohd Rahimi Yusoff, Reevany Bustami, Chong Kuan Eng, Safiah Sidek and Raja Nor Safinas Raja Harun.

Acknowledgements for specific chapters that had earlier been published elsewhere are provided in the references at the end of each article. However, we would like to especially mention Futures, Foresight, On the Horizon, and the Journal of Futures Studies.

“Transforming Public Institutions: Application of mapping the future methods in the transformation process of public institutions in Malaysia: Some conclusions” was written by Azhari Karim and was originally published in Journal of Futures Studies (Vol. 15, No.4), pp 189-202.

“Futures Scenarios for Universiti Teknikal Malaysia Melaka (UTeM) – Perspectives of a Technical-Focused University was authored by Fazidah Ithnin, Shahrin Sahib, Jailani Mohd Nor and Mohd Rahimi Yusoff. It was originally published in the Journal of Futures Studies (Vol. 21, No. 4, 2017), pp 1-14.

“Transformative Foresight: Universiti Sains Malaysia Leads the Way” was authored by Elisha Nasruddin, Reevany Bustami, and Sohail Inayatullah It was originally published in Futures (Vol. 44, 2012), pp 36-45.

“Augmented reality, the *Murabbi* and the democratization of higher education” was authored by Sohail Inayatullah and Ivana Milojević. It was originally published in On the Horizon (Vol. 22, No. 2, 2014), pp 110-126.

“Leadership and governance in higher education 2025: Can Malaysian Universities meet the challenge?” was authored by Sohail Inayatullah and Ivana Milojevic. It was originally published in Foresight (Vol. 18, No. 4, 2013), pp 434-440.

“Mapping the futures of Malaysian Higher education: A meta-analysis of futures studies in the Malaysian Higher Education Scenario.” was authored by Fazidah Ithnin, Shahrin Sahib, Raja Safinas Raja Harun, Chong Kuan Eng and Safiah Sidek. It is forthcoming in March 2018, in the Journal of Futures Studies, Volume 22(3).

Sohail Inayatullah & Fazidah Ithnin, November, 2017

LIST OF ACRONYMS

1. AKEPT - Higher Education Leadership Academy
2. APEX - Accelerated Programme of Excellence
3. CLA - Causal Layered Analysis
4. CIRT - Instructional Resources and Technology
5. EPU - Economic Planning Unit
6. GPS - Global Positioning System
7. MATDCT - Mapping the future, Anticipating the future, Timing the future, Deepening the future, Creating alternatives and Transforming the future
8. MEB HE - Malaysian Education Blueprint Higher Education 2015-2025
9. MHE – Malaysian Higher Education
10. MIGHT - Malaysian Industry and Government Group for High Technology
11. MMORPGs - Massively Multiplayer Online Role-Playing Games
12. MPM - Malaysian Examinations Council
13. MOOCs - Massive Open Online Courses
14. MOSTI - Ministry of Science and Technology Innovation
15. NKRA - National Key Results Areas
16. R&D – Research and Development
17. RFID - Radio Frequency Identification
18. RU - Research University
19. Samsung IOT Centre – Samsung Internet of Things Centre
20. SOHO - Small Office Home Office
21. TiCOE - Technically competent and industry driven Centre of Excellence
22. TVET - Technical and Vocational Education Training
23. USM – Universiti Sains Malaysia
24. UTeM – Universiti Teknikal Malaysia Melaka
25. UCC - University Commercialization Centre
26. UTP - Universiti Teknologi PETRONAS



INTRODUCTION

CAN MALAYSIAN HIGHER EDUCATION TRANSFORM?

While there are many books and articles on the current state of Malaysian Universities¹, there is far less research on the futures of Malaysian universities. This volume addresses this gap. In the heat of the impending fourth industrial revolution, will the current university system transform in line with the foreseen trends of mobile-apps-based augmented virtual reality ushering a borderless world of knowledge acquisition? Taking into account the robust advancement in technology, will Malaysian universities reassess and reposition their overarching roles in addressing not only the needs of society today, but critically, the generations of tomorrow.

Malaysia's HEIs, which include public universities, private higher education institutions, polytechnics and community colleges subsume more than 1.5 million students in 2016, including about 114,653 international students from more than 100 countries.

Of the 21 public universities in Malaysia, five are categorised as research universities with additional funding for research and development and commercialisation of research products. Four universities namely Universiti Teknikal Malaysia Melaka, Universiti Tun Hussein Onn, Universiti Malaysia Pahang and Universiti Malaysia Perlis collectively form the Malaysian Technical University Network (MTUN) with a significant mission to produce holistic and competent TVET (technical and vocational education training) graduates fulfilling Malaysia's aspiration of a highly industrialised nation in 2020. The remaining 11 universities are listed under the category of comprehensive universities offering a broader range of programmes.

Endeavouring to be the hub of higher education excellence in Southeast Asia, Malaysia Higher Education (MHE) has embarked on the National Higher Education Plan spanning from 2007-2020 targeted at attaining a world-class recognition among its universities. In doing so, the presage of the futures scenarios of Malaysian universities will require substantial assiduity.

¹ Murray Hunter, "Why Malaysian Universities are Performing Poorly - Analysis," Euroasiareview (6 January 2016). <http://www.eurasiareview.com/06012016-why-malaysian-universities-are-performing-poorly-analysis/>. Accessed 6 June 2017.

This book is divided into **two** sections. **Section One** introduces foresight generally in Malaysia and then focuses on two Malaysian universities: Universiti Sains Malaysia (USM) and Universiti Teknikal Malaysia Melaka (UTeM). **Section Two** presents the extensive futures work undertaken by the Higher Education Leadership Academy (AKEPT) over a period of three years (2012-2014). Professor Datuk Dr. Ahmad Yusoff Hassan, the former Vice Chancellor of UTeM provides synthesizing comments to conclude this volume.

Why the Future?

These chapters, we believe, represent some of the best thinking, globally and nationally, on the futures of higher education.

But why focus on the future? Aren't there enough problems today, urgent and important tasks that university vice-chancellors, deans and professors must attend to? Isn't the future yet another burden? Is leadership, agency, possible?

While it is certainly true that university leaders find themselves overwhelmed, it is precisely this focus on the immediate that ensures that opportunities for transformation, deep change, are lost sight of. And when there are crises, rarely have contingency plans been drawn up.

But most significantly, today was once a possible future – it was created by external trends and by decisions made by government, business, thought leaders and by citizens. Thus, our actions today create a particular future, sometimes by choice but often without clarity, merely a continuation of the present. However, by investigating alternative futures, we can step back and decide if the current trajectory is desired or if changes ought to be made, if another direction and vision should be followed.

Moreover, the rate of change – technological, economic, social, demographic – continues to challenge business-as-usual management approaches. It behoves university leaders to comprehend these waves of changes and attempt to, when possible, steer the vessel of higher education in a different direction, to different waters. Certainly, given the rapidity of change, having a broad and deep map of the alternative futures ahead is thus critical – urgent and important - indeed, as important as the present.

This does not mean that the present or the past are ignored; rather, time is extended. Leaders can act in multiple time frames: the present, the medium term 5-10 year alternative futures and the longer term 20 year vision.

While thinking strategically about the future can reduce and mitigate external risks, problems associated with how we constitute external reality – worldview risks - remain. Often our metaphors of the future, the ways we construct reality, limit our capacity to innovate. New narratives/stories are thus required that help serve our desired futures and reduce the risk of paradigm blindness.

Thus these chapters generally not only articulate alternative visions of the future of the university, they also challenge current worldviews and narratives and offer new preferred stories which can better support and help create desired futures.

Salient Points from these Chapters

Taken together, the following points are salient:

First, Malaysian higher education is in the process of massive changes primarily due to globalization, digitalization, the development of a knowledge economy, and demographic transitions.

Second, scholars recommend as much as feasibly possible to create a far more flexible system- more choices for students and academics. This system can be called the “healthy buffet” or the education mall or when it comes to talent, the Swiss army knife analogy. In any case, the factory model or the “force-feed” scenario has reached its limits. New systems of assessment and cooperation need to be invented.

Third, the ethical cannot be lost sight of; indeed, it is crucial to the future. Whether the cooperative of professors, the *murabbi* or the university based on social justice, scholars are clear that the ways forward must enshrine ethics in the future. Opaque institutions biased by politics and bureaucratic inference tinged with favouritism have no place in the future.

Fourth, governance and leadership must shift. This means new rules and regulations with new measures of effectiveness. Not just must there be new narratives for higher education such as the collection of longhouses but there must be real changes in governance, for example, the consortium.

Finally, all these possible changes must proceed with cooperative leadership and decision-making. Leadership must hold the vision of the future but full participation and inclusion in the process and implementation is required.



SECTION ONE

CHAPTER 1

TRANSFORMING PUBLIC INSTITUTIONS: APPLICATION OF MAPPING THE FUTURE METHODS IN THE TRANSFORMATION PROCESS OF PUBLIC INSTITUTIONS IN MALAYSIA: SOME CONCLUSIONS

Azhari-Karim

Summary

This chapter explores transformation efforts undertaken by four public institutions in Malaysia in the years. In the process through the application of the different methods for mapping the future it became clear leadership and a clear-sighted vision of a possible or preferred future of the institutions concerned should already be predetermined.

Introduction

Ever since the Najib administration assumed power in Malaysia in 2009 “transformation” and how quickly this could be achieved has necessitated public institutions to undertake shake-ups and changes to prepare themselves for the future. In the process dislocations have become commonplace. Among the observations that could be made were that institutions have to concern themselves with issues of time-frames by which the institutions would like the process to be completed, the choice of a suitable method to achieve their transformation goals and the question of who is going to lead the transformation. We have to contend as well with questions concerning the outcomes of the process being applied.

Four Institutions and Transformation of their Future

Selected for discussion in this paper are four institutions in Malaysia that represent the following categories: the Universiti Sains Malaysia (USM), a public higher education institution; the Universiti Teknologi Petronas (UTP), a private higher education institution linked to the National Oil Corporation, PETRONAS; the Malaysian Examinations Council (MPM), an institution that administers examinations in the country and the Malaysian Industry Government Group for High Technology (MIGHT), an institution that oversees

the development of technology and innovation for the country and comes under the purview of the Ministry of Science and Technology Innovation (MOSTI).

For these institutions the challenge is to institute changes following a fixed time-frame and with the minimum dislocation. For USM, it has been able to stay ahead of the pack as it has already started a change exercise as early as 2002. For the UTP the strategy has been to proceed to attain the status of a Research University, a criteria introduced by the Ministry of Higher Education Malaysia in 2007, to ensure that selected Universities would be able to harness their capacities in R & D and innovation. Until today only four Universities have been recognized in the country as Research Universities by the Government and this has included the USM.

The UTP conducted a series of workshops in mid-2009 to explore the benefits of scenario-planning. In the case of the Malaysian Examinations Council it too has started its own exercise of instituting change since 2007 and has even moved on to determine a 'preferred future' model for itself. The outcome of a recent workshop held in August 2010, to follow-up on the scenario-building exercise it has conducted previously, has left much grounds to be covered.

MIGHT, the fourth institution was established to spearhead the technological drive of the Government in the 80s and 90s, to gain advance technology and expertise to manage the future. It has teamed up with the Commonwealth Partnership for Technology Management (CPTM), based in London. Since 1995, MIGHT has been functioning as a key player in the Smart Partnership Dialogue SPIRAL (Smart Partnership International Regional Action for Limitless Opportunities). It decided to launch the MyForesight Initiative in 2015 as part of a bigger National Foresight Programme. This followed an earlier effort to establish MyFutures as a coordinating Centre for Malaysian Futures. It has also geared itself to become the prime-mover to work out the preferred and alternative scenarios for Science and Technology in the country in the next ten to fifteen years. It also aimed to come up with the Foresight Roadmap for 2011 – 2020.

Time Frames

For Malaysia strategic planning at the national level has followed a model of development cycle of five-year duration. Since achieving Independence in 1957, twelve such Five-Year Plans have been carried out. Each of these Plans embodied the macro-economic planning for the country and tracked the progress of development in all sectors from education, health and agriculture

TRANSFORMATION 2050: THE ALTERNATIVE FUTURES OF MALAYSIAN UNIVERSITIES

This book presents some of the best thinking, globally and nationally, on the futures of higher education in Malaysia. The collated articles in this volume are produced by experts and practitioners of futures thinking based on current scenarios and their anticipation of the preferred future. Transformation 2050: The Alternative Futures of Malaysian Universities sums up the critical relevance of designing the desired future using the six pillars approach – encouraging university leaders to envision best-case scenarios involving university leadership, teaching and learning, students and academics. The current pushes of the future, the apprehensions of the fourth industrial revolution which hails new digital technologies and heightens globalization in every aspect, calls for the Malaysian Higher Education to respond in ways that enhance the system and effectuate the nation's aspiration of a fully developed nation in 2020.

EDITORS

Professor Sohail Inayatullah is the first Unesco Chair in Futures Studies held at USIM, Malaysia. He is a political scientist/futurist at Tamkang University, Taiwan and the University of the Sunshine Coast. He is also an associate at Mt Melbourne Business School, the University of Melbourne and is the Director of Metafuture.org, an international think-tank focused on creating alternative and preferred futures.

Professor Inayatullah has authored/edited thirty books, journal special issues and cd-roms and over 350 journal articles and book chapters as well contributed to the Oxford Encyclopedia of Peace, the Routledge Encyclopedia of Philosophy, The Macmillan Encyclopedia of the Future and the Unesco Encyclopedia of Life Support Systems.

Fazidah Ithnin joined Universiti Teknikal Malaysia Melaka (UTeM) in 2010. While teaching is still her forte, she also leads the Chancellery Management and Relations Office for the past seven years – overseeing matters related to communications, image and branding, media networking, event management, international visits and external relations. Her current area of interest is in futures studies in which she has facilitated courses, produced articles and presented papers at national and international conferences symposiums and seminars.

Since 1995, she has conducted ELP and ESP workshops, among others for Ministry of Tourism, Ministry of Education, Ministry of Home Affairs, Ministry of Transport Malaysia and several other government agencies and NGOs. She is also actively involved in handling motivational workshops for the Melaka State government offices, primarily adopting the six pillars foresight method canvassing of the preferred futures.



ISBN 978-967-440-419-2



<http://penerbit.usim.edu.my>

