Malaysian Universities in Transformation

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Can Higher Education Transform?

Will Higher Education in Malaysia transition from the factory model to a student-centred 'Café' approach, the 'à la carte' university? Will lecturers remain mired in bureaucratic forms or will they be able to focus on teaching and learning? Will blended learning platforms succeed? Will the current pushes of the future – new digital technologies, an ageing society, changing paradigms in learning and heightened globalization – overwhelm higher education in Malaysia or can Malaysian Higher Education respond to these pushes in ways that meet student, professor, university, industry and community needs?

These and other questions were debated in Melaka from September 24-28, 2012 by academic leaders – deans, deputy deans and deputy vice-chancellors (DVCs). Sponsored by AKEPT (Higher Education Leadership Academy, the Ministry of Education) and organised by Universiti Teknikal Malaysia Melaka (UTeM), eighteen Malaysian academic leaders – deans and deputy deans – from thirteen different universities[1] met in Melaka to develop scenarios[2] and strategies for the futures of Malaysian higher education. Their future-oriented discussions were framed by the 'six pillars' futures approach.[3] They presented their findings to fourteen deputy vice-chancellors from eleven different universities[4]. After a discussion of the findings of the deans and deputy deans, the deputy vice-chancellors began their own deliberation focused on two areas: (1) the futures of teaching and learning in higher education and (2) the ways in which the role of student services for Malaysian universities will have changed by 2025. The purpose of the deans presenting to their senior deputy vice-chancellors was to create an action learning loop, through which discussions could be focused, leading to immediate feedback and thus reflective learning.

Overall Recommendations of the Deans to the Deputy Vice-Chancellors and the Higher Education Ministry

The overall recommendations and conclusions by the academic leaders were as follows. First, the Malaysian higher educational system needed to move from a regimented system to a flexible, adaptive one. This means challenging the factory model of education where rote learning and surveillance are considered more important than quality and critical reflection. New metaphors are required. One suggestion was a "Café in the library." This metaphor evokes the importance of structured knowledge (the library) with informal learning - fun, discussion

and friendship (the café). Another equally provocative metaphor was the symphony orchestra, where coordination and proper directing led to heightened creativity. In both cases, the regimented factory model was considered the "used future" – no longer useful for the nation's economic, scientific and cultural development. A third powerful metaphor was 'à la carte' wherein students had a more central role in co-designing their education.

Second, the lecturer, while remaining multi-task oriented needed to be freed from administrative documentation and other red-tape administrative procedures that took them away from reflection, teaching and community pedagogy. "Green-tape" measures that encouraged productivity were needed. They imagined the lecturer moving from being "scattered and exhausted" to "focused and motivated."

Third, the Malaysian university system needed to wisely address the digital gap between older professors and younger digital natives (both lecturers and students). New learning platforms that placed the student first needed to be developed. While adapting to new technological platforms was pivotal, face-to-face interaction was still required – blended learning.

Fourth, the disconnection that academics feel needed to be challenged. Academics need to connect with nature, with students, with industry and with the broader community. Instead of the "ivory tower" or "the enclosed castle", new more open narratives were sought where systems were integrated and connected, creating an ecology of learning.

Fifth, the student needed to be at the centre of the Malaysian higher educational system. In the Café in the Library and the 'à la carte' model of education curriculum is modular, flexible, with course content coming from digital apps. Face-to-face discussions are for assessments and for group learning. As well, flexibility of course duration is required. University degrees need to be tailored for students, designed for mobility, flexibility and the person. This means a major switch in mind-set, moving away from the factory-style, one age-set model to a life-long and life-wide (formal and informal) model.

Overall Conclusions by the Deputy Vice-Chancellors

The DVCs focused on transforming teaching and learning and imagined alternative futures for student affairs. They concurred with the recommendations on teaching and learning made by the deans. They did, however, add the following:

First, the current lecture-based, rote-learning, factory-model, force-feed system is not sustainable, as it places Malaysia at an economic disadvantage; innovation is hampered. Their conclusion was that the system had to change - business-as-usual was untenable.

For the futures of learning, change would be targeted into three areas: (1) for elite students, the 'à la carte' model would work perfectly as these students had demonstrated the capacity to design their own education. However, for the middle of the road and bottom level students – the majority – the blended learning model where there was some hand-holding was more appropriate. This was the "Café' in the library." However, given the pressure from parents – who remembered a different way of learning – and other stakeholders, who generally have more conservative views of learning, it was important, to ensure that what was offered in the café' (or indeed, in the 'à la carte') was a 'Nutritious Buffet'. In this approach, the Ministry and the university leadership (VC, DVCS, deans) in consultation with the student

body, would develop a healthy buffet of courses and possibilities. Quality control would ensure that "junk food" did not enter the buffet. They would thus ensure that content, even while student focused, still met the needs of Malaysia's changing job market and cultural framework.

Second, the approaches outlined are also time based. Even though it is still used, the previous factory force-feed model has expired, its use-by-date having passed long ago. Knowledge poisoning is the result. The 'a la carte' student-led totally flexible and mobile person-based model is the long term future – 2025-2030 possibly. While the technology is rapidly developing, culture lags behind. The weights of history are numerous (mind-sets of academics, hierarchal nature of the university, the parent-child relationship between the Ministry and Universities). The 'café in the library', the blended model, is the emerging future, as it is has a mix of top-down and bottom-up, digital and face to face learning. However, this future, even as it emerges, may not be appropriate for Malaysia's cultural needs. Thus, the prime recommendation is the move to a model of education with the metaphor of "Nutritious learning." It is neither force-fed, nor "all you can eat" but rather healthy eating for a healthy Malaysia: prosperity, community and sustainability.

The deputy vice-chancellors of student affairs focused on the changing nature of their work. Their context was that the forces transforming higher education were impacting them even more so, as they directly dealt with students' care and concern. HEP (*Hal Ehwal Pelajar*) could not continue as usual. Rather, in the future it needed to be far more decentralized, as education becomes more personalised, tailor-made. And as digital technologies continued to proliferate, leading to a future where there was an "app for everything" their role would not decrease, rather, they had to ensure that they (1) provided appropriate digital support and that they (2) played the role of facilitator of knowledge and life navigator to younger students.

If in the past HEP was essentially parental; today HEP is focused on finding employment and student development; but, in the future it would be diverse: ensuring students engaged in the wider and broader global community; ensuring students had the intellectual, emotional, technological and even spiritual skills for a globalising world. And DVCs of Student Affairs need to address these challenges in the context of enhanced student autonomy.

If HEP was unable to help facilitate the changing nature of student needs, the future was very clear. HEP would be at the very least dysfunctional and most likely irrelevant as well – a parent with no wisdom or direction. Early metaphors of the DVC of student affairs as a "know it all" guardian were no longer useful. Rather, the DVC needed to become a "buddy", a true collaborator, a facilitator of the needs of the developing student. And this could not be done *en masse*, but had to be personalized, student by student. Thus, for those leading in Student Affairs, if they wished a future that created world leaders in their disciplines, then "loco parentis" would not deliver.

From Overall to Conclusions to Crucial Details

These recommendations and conclusions were derived through the six pillars foresight process. This process is a structured way to map the future, identify emerging issues and trends, discern the first and second order of these implications, deconstruct metaphors and narratives, create alternative futures, design a preferred future, and articulate related strategies. Each pillar has a number of methods to

elucidate alternative futures. Most relevant for this report are: (1) the futures triangle, (2) causal layered analysis and (3) scenario planning. In the futures triangle, three aspects are critical. The pushes of the present- demographic shifts, new technologies – the weight of the past – often in the form of a traditional mindset – and the compelling pull of the future. Through a strategic analysis of these three forces, a plausible future can be created.

Causal layered analysis seeks to unpack the future at four levels. This method and theory of knowledge seeks to deepen the future. It has four dimensions: first is the litany, or the day-to-day future, the data, the commonly accepted headlines of the way things are or should be. Solutions to problems at this level are usually short-term-oriented. The second dimension is deeper, focused on the root social, economic, political causes of the issue—the systemic. Solutions at this level tend to challenge traditional silos and be whole of government, multi-stakeholder-based. The third dimension is the culture or worldview. This is the big picture, the paradigm that informs what we think is real or not real, the cognitive lenses we use to understand and shape the world. Solutions at this level involve paradigm or worldview change. The fourth dimension is the myth or the metaphor—the narrative. Metaphors are often the vehicles of myths. Solutions at this level involve creating or finding a new organisational story.

The most effective organisational and institutional strategies are those that include all four levels: new data to measure the new desired future; systemic changes; mindset change and new metaphors. Moreover, in a proper causal layered analysis, the issue is examined from the perspective of multiple perspectives, with the strategic goal of articulating an integrated whole-of-worldview solution.

The scenario process involves identifying uncertainties and risks and developing alternative futures so that unknowns are named and strategized about differently in each future. While there a number of scenario methods, in these workshops, the "Integrated" method[5] was used. In this method, we begin with the "preferred future", often an ideal type, what stakeholders desire. From this future, the "disowned" is articulated. The disowned is what the ideal type is unable to account for, often its opposite. The third scenario is the "integrated", as it combines the ideal with the disowned, thus making the future more plausible and robust. Finally, an "outlier" is articulated to address the unknown unknowns. This scenario method uses the CLA structure of litany, systemic, worldview and metaphor to describe the characteristics of the alternative scenarios. Based on these methods, strategies are developed.

With the deans and deputy deans, four working groups were created. They were (1) Overall University, (2) Teaching and Learning, (3) Student and (4) Lecturers. In the section that follows I present aspects of the findings to illustrate the conclusions above.

Overall University 2025

The Overall University group presented the following analysis.

Table 1 *Causal layered analysis*

	STUDENTS	UNIVERSITY	INDUSTRY	INTEGRATED
LITANY	Can work everywhere	Produce best graduates	Industry-ready students	Best among the best
SYSTEMIC	Multi-disciplinary-based curriculum	Up-to-date curriculum	University within Industry Graduates are market savvy	Curriculum to be reviewed regularly with stakeholders
WORLD VIEW	Best among the best Multi-skilled students	Knowledge, critical reflection	Continuous engagement with industries	Meets the need of all stakeholders through regular consultation and cooperation
MYTH-METAPHOR	Borderless	Always a pioneer, always ahead	Relevant	We agree to agree

Of relevance for this discussion is how, in their reconstruction, the integrated plausible future, the needs of all the stakeholders are met – a true win-win scenario wherein, "we agree to agree". [6]

When they expanded their analysis to aggregate scenarios – the Malaysian University of 2025 – they integrated the ideal type preferred scenario of an Industry-based university with the needs of the community. This created an industry-community future by 2025, using the metaphor of Café in the library. The outlier was a return to the "Ivory Tower" with eventual loss of relevance because of new actors in the university market. New actors are likely to enter the education market, as it is already a 2.5 trillion US dollar global industry and demand for higher education is likely to expand from 97 million students in 2000 to 262 million students in 2025.[7] Along with public higher education, there is the private higher education market, which is estimated to be around $400 billion globally.[8]

Table 2. *Malaysian university 2025*

MALAYSIAN UNIVERSITY 2025

Preferred - Industry-based University	Disowned – Community needs
- Research-led University - Industry-funded research - University produces industry-ready student - Win-win situation	- Community is ignored - Lack of support/fund from government and industry - University does not solve community problem - You can't have the cake and eat it too
Integrated – Industry-Community-based University - Global recognition - University within industry supporting community needs - University grows together with community - Café in the library	Outlier – Back to the Ivory Tower Universities continue but the best students do not enroll Knowledge is not community nor industry based. It is not relevant and new actors enter the market – Google, for example

Teaching and Learning 2025

The Teaching and Learning group began their foresight work with a futures triangle where the compelling image was that of a "university in a gadget". This was an illustration of the "app"-based university: mobile, 24/7, easily accessible and easy to use. From there, they moved to a CLA of the current reality as deconstructed from the viewpoint of students. Their integrated or reconstructed alternative saw a narrative transformation from the "regiment" to the "orchestra". The "orchestra" resolves the tug-of-war in the student-centred approach – the tension between students and the needs of the Ministry and lecturers. The orchestra provides a story of a way forward. There is potential harmony between all the stakeholders if a number of factors are adhered to. These include high quality instruments (digital technologies, broadband, apps), skilled musicians (professors, deans, administrators, lecturers) and an overall conductor. The conductor, in this approach, could be the Vice-Chancellor or the Ministry. But crucial in this future is that a conductor/director is required. The conductor, however, cannot be overbearing or the musicians will not follow. Nor can there be a lack of discipline; otherwise there will be discord, a lack of harmony. The power of this narrative is that Higher education is not about regimented rote factory knowledge but about creativity, about innovation.

Table 3. *CLA*

From Regiment to Orchestra

	Deconstructed	Current Reality	Reconstructed
Litany	Student centered learning	Traditional teaching and learning is the best.	Holistic teaching and learning
Systemic	Learning outcome should not be predetermined Flexible learning	Rigid – one-way learning, lectures know best	Quality issues Assessment (self assessment and benchmarking) Recognition
Worldview	Democratic teaching and learning	Lecturers dominate teaching and learning	Creative partnerships between independent human beings
Metaphor	Tug-of-war between teaching and learning and other stakeholders	One man shows Lecturer knows best	The orchestra - in sync and in harmony

Students 2025

As expected, this group's envisioning of the preferred future of student's was a world in which students had full flexibility in 2025. They called this the "lego" model of education. However, this future disowned issues of finance and quality control. While it may be preferable for students, logistical issues, as well as issues of quality control and accreditation are unaccounted for. Their integrated future was that of the "Transformer". There was a traditional structure but the student – the university – could transform based on the needs of the situation. They could meet the needs of the global market, national industry, their community and their own needs. There was standardisation, but innovation as well. This is similar to the "café' in the library" metaphor outlined earlier. The outlier scenario was one where the "transformer" lost focus, becoming the "jack of all trades."

Table 4 *CLA*

MALAYSIAN UNIVERSITIES 2025 STUDENTS' PERSPECTIVE				
	PREFERRED	DISOWNED	INTEGRATED	OUTLIER
LITANY	Flexible courses (what, when, where) Apps based Students only attend face-to-face consultations for assessments and practical workshops	Financial issues (who pays what to whom) Lack of standardization in education	Enough flexibility to allow for changes to the study plan Allows flexibility of course duration to suit ability and current environment	Jumbled-up education system
SYSTEMIC	Modular Curriculum structure Apps based courses Synergy Twin Degrees No time limit for studies Flexible Assessment Modes Life long and life wide learning	Quality control and accreditation issues Logistics Regulations issues not addressed Sustainability of University Professional Body may actually be the degree granting body	-some form of Central regulations -general structure of study programme -mobility among similar programme/univ -standardised fees structure	No regulation Difficult to plan for the future Difficult to keep track of students
WORLD VIEW	Globalised University Total Student mobility Ranking by votes	No formalised University ranking	Global Students	Loss of specific discipline
METAPHORES	LEGO	GameNwatch	Transformer	Jack of all trades, Master of none.

Lecturer 2025

The lecturers focused their analysis on the systemic tension between teaching and learning and administrative rules and regulations. They understood that they were being squeezed from above (university administrators demanding that they work harder and increase their productivity) and from below (students requiring instantaneous responses to their queries).They sought a narrative switch in which they continued to multi-task but became focused.

LECTURER 2025

Scattered and exhausted multi-tasker
2012

Focused and motivated multi-tasker
2025

Figure 1. Narrative

From a narrative analysis, they articulated four scenarios of the futures of the lecturer in 2025. In the first, lecturers are high paid and autonomous, focused multi-taskers. This was contrasted with low paid lecturers who were caught between two masters: government and private interests. In the integrated scenario, salary is based on performance. Finally, in the outlier scenario, lecturers and the higher education system are unable to adapt – students go overseas, international students avoid Malaysia, industry no longer values university certificates – and the lecturers lose their jobs.

Table 5. *University lecturer*

Malaysian University Lecturer in 2025

| PREFERRED	DISOWNED
• Fully autonomous lecturers • Able to choose between teaching and research • Some percentage of grant money allocated to lecturers **"High paid & autonomous lecturers"**	• Fully controlled – no say • Reporting to two masters: government and private • Endless student demands • Demoralised lecturers **"Low paid lecturers"**
INTEGRATED	OUTLIERS
• Autonomous universities • Joint ventures between universities and industries • The best rise in salary **"Performance based salary"**	• All students go overseas • Cheaper, better quality • Industry no longer value certificates **"Unemployed intellectuals"**

Shared Vision Malaysia 2025

After considerable deliberation, all four groups developed a shared vision of the Malaysian University in 2025.
The vision had the following characteristics:

1. The university was sustainable in terms of financing and energy use.
2. It was student-centred, focused on the Cafe' in the library. There was blended learning – student flexibility and, indeed, students playing an important role in pedagogy design.
3. Lecturers had far more autonomy and were freed from administrative tasks so they could innovate in teaching and learning.
4. Measurements for success were balanced, including quality research, student satisfaction, industry relevance and sustainability.

Getting to this future did not seem difficult given the pushes from new technologies, digital migrants, the advent of the world knowledge economy, new apps. Indeed, they saw five intervening steps to get to this new future. The following illustrates the logic of their thinking.

Table 6. *Backcasting*

STEPS TO REALIZING THE PREFERRED FUTURE BACKCASTING
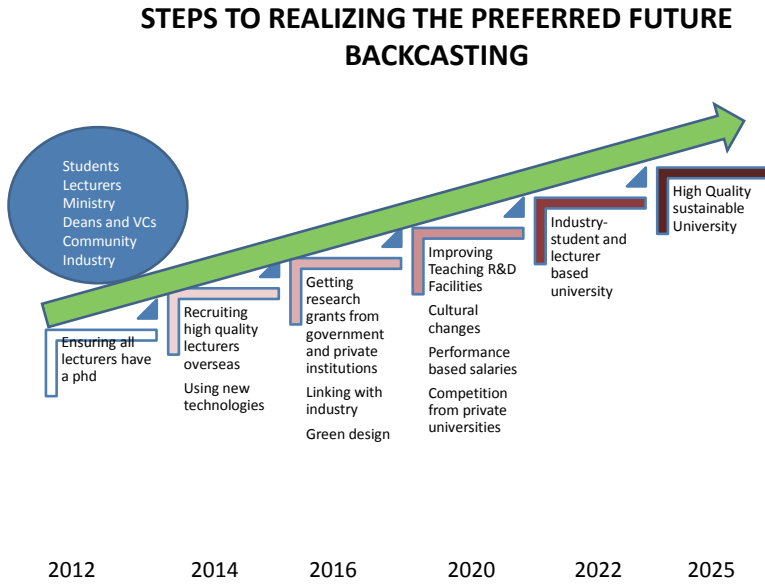
Deputy Vice-Chancellors

The DVCs underwent a similar process though it was shortened from three days to one. There was less time for methodological capacity building. However, as they had heard the presentations of their deans, they were well prepared.   As mentioned earlier, there were two groups. The first group focused on teaching and learning. They developed four scenarios of the futures of teaching and learning.

Table 7. *Teaching and learning scenarios*

TEACHING AND LEARNING 2025
Four futures

LECTURE	LEARNING FROM EVERYWHERE	SMART PEDAGOGY	WISDOM OF CHOICE
EXAM BASED	SELF-DIRECTED	PARTNERSHIPS	DIRECTED PARTNERSHIPS
CONFORMANCE AND CERTFICATION	DEMOCRATIZATION	BLENDED LEARNING	WHOLESOME
FORCE FEED	EAT ALL YOU CAN (Ala Carte)	OMNIVORE	NUTRITUOUS BUFFET

While students may prefer "all you can eat" and technologists may prefer blended learning, the wise choice, it was argued, was the 'nutritious buffet'. Each scenario of course has challenges if it becomes extreme, and as argued above, they can be seen within a temporal framework, with "force-feed" the present (though past for some), and the others some version of the future. As well, the different scenarios may serve different futures. "All you can eat" may be perfect for the self-directed advanced learner, but not so appropriate for the new learner, who may eat too much of the wrong type of food. For the new learner, the 'nutritious buffet' is likely to be more apt. As well, this future fits more closely to the zone of development of government institutions which traditionally have been command-control organisational structures.

Deputy Vice-Chancelors

The DVCs from student affairs focused on the narrative transformations required for the future DVCs. They used the causal layered analysis methodology. Their main focus was the move in the future to the buddy or colleague models as the nature of students, technology, and parental expectations changed. In their scenario exercise, they imagined four futures. In the first future, HEP essentially became volunteer-centred. Budgets were slashed and DVCs were no longer required. In the second scenario, wherein Malaysian Universities became highly successful and global, the DVCs focused on the following:
(1) Job placement
(2) Linking students with industry
(3) Developing international connections
(4) Taking care of international students and staff.

In the third, Student-led or 'à la carte' scenario, the DVC played a knowledge-navigator role. He was no longer the parent but instead validated student programs, ensuring they followed best practice.

In the last scenario, because of virtualisation HEP became virtual-based, ensuring safety for online students. HEP became a Help Desk of sorts.

In any of these four scenarios, what became clear was that the traditional role of the DVC was unlikely to continue and that they need to not search for technical solutions but for solutions engaged in adaptive leadership.

Conclusion

The meta-lesson for higher education was that technical solutions are appropriate in periods of slow change, but that during periods of dramatic change, solutions need to be narrative and mind-set based, that is, not focused on the minutiae of administration but on adaptive leadership. Academic leaders reasoned that changes in higher education were inevitable. The extent that these changes could be shaped was unresolved. Some believed that through foresight methods and strategic planning, the future could be shaped toward the desired. A small minority believed that the weight of history was too great, and thus little could be done. They were more comfortable with minor technical responses to the new technologies and education globalization. Those who believe the future could be shaped were ready to take positions of adaptive leadership, and to make a difference.

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Notes

1   The universities were: Universiti Teknikal Malaysia Melaka, Universiti Putra Malaysia, Universiti Malaysia Terengganu, Universiti Malaysia Sabah, Universiti Malaysia Kelantan, Universiti Malaysia Perlis, Universisit Utara Malaysia, Universiti Sains Malaysia, Universiti Malaysia Sarawak, Universiti Sultan Zainal Abidin, Universiti Kebangsaan Malaysia, Universiti Islam Antaranbangsa, and Universiti Pendidikan Sultan Idris.

2   For more on scenarios in the Malaysian context, see: Ellisha. Nasruddin, Universiti Sains Malaysia, Constructing Future Higher Education Scenarios, Insights from Universiti Sains Malaysia, USM Press, Penang, 2007. Also see: Ellisha Nasruddin, Reevany Bustami and Sohail Inayatullah, Transformative foresight: university sains Malaysia leads the way," Futures (Vol. 44, 2012), 36–45.

3   Sohail Inayatullah, "Six Pillars: futures thinking for transforming," Foresight (Vol. 10, No 1, 2008), 4–28 and Sohail Inayatullah, Questioning the Future: Methods and

Tools for Organizational and Societal Transformation, Tamsui, Tamkang University, 2005, 2007. Also see: "University futures: Wikipedia University, Core-periphery reversed, Incremental Managerialism or Bliss for all," On the Horizon, (Vol. 20, No. 1, 2012), 84–91.

4 The Universities were: Universiti Teknikal Malaysia Melaka, Universiti Teknologi Mara (3 DVCs /Reps), Universiti Putra Malaysia (2 DVCs), Universiti Tun Hussein Onn Malaysia, Universiti Utara Malaysia, Universiti Malaysia Sarawak, Universiti Pertahanan Malaysia, Universiti Islam Antarabangsa Malaysia, Universiti Kebangsaan Malaysia, Universiti Sains Islam Malaysia and Universiti Teknologi Malaysia.

5   Developed by Sohail Inayatullah. See, Sohail Inayatullah, "Questioning scenarios," Journal of Futures Studies (Vol. , 13, No. 3, February 2009), 75–80.

6 This meme emerged during the Sarkar-Neohumanist Game, which is an aspect of the third pillar, "timing the future." For more on this, see, See Peter Hayward and Joesph Voros, "Playing the neohumanist game, Sohail Inayatullah, Marcus Bussey and Ivana Milojevic, eds., " in Neohumanist Educational Futures: Liberating the pedagogical intellect, Tamsui, Tamkang University, 2006, 283-296.

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