FUTURE INTERNATIONALIZATION of Higher Education









Key Issues Influencing





PREFACE

Office of the Higher Education Commission of Thailand (OHEC), now Ministry of Higher Education, Science, Research and Innovation (MHESI), through its Bureau of International Cooperation Strategy (BICS) has for decades retained its priority on 'internationalization' (IZN) policy, partnering with universities, regional and international organizations. During the past years, BICS has strongly encouraged universities to reflect and relearn what IZN means and how it could contribute to the overall development of higher education institutions.

Several challenges remain to be tackled to be more responsive to the new contexts and settings of the world. It needs to employ futurist perspectives and tools for exploring what potential strategic issues are influencing the future of IZN in Thailand so as to understand the contexts and identify gaps for further strategic actions. With the excellent cooperation with Fulbright Thailand and Dr. Andy Hines, the Fulbright Specialist and Futurist, BICS takes pleasure to share with you the report on "Key Issues Influencing the Future Internationalization of Higher Education". The results of all the key forums with universities' executives, stakeholders, experts are synthesized and lintegrated to sharpen its key strategic priorities.

We hope that this report will inspire you to have a strategic move to drive for meaningful IZN processes at all levels to align with national and university policies and respective contexts of universities. With the invaluable support and input from the universities, experts, agencies, we all are the key chains that link together and help push our future internationalization to the goal we aim.

Bureau of International Cooperation Strategy,
Office of the Permanent Secretary,
Ministry of Higher Education, Science, Research and Innovation
March 2020

LIST OF ABBREVIATIONS

(In order of occurrence)

IZN	Internationalization
re: IZN	Regarding Internationalization
HE	Higher Education
OHEC	Office of the Higher Education Commission
BICS	Bureau of International Cooperation Strategy
VUCA	Volatile, Uncertain, Complex, Ambiguous
laH/IZN at Home	Internationalization at Home
ICT	Information and Communication Technologies
CLMV	Cambodia, Laos, Myanmar and Vietnam
GMS	Greater Mekong Subregion
IMT-GT	Indonesia-Malaysia-Thailand Growth Triangle
P2P	People to People
AUN QA	ASEAN University Network Quality Assurance
AUN	ASEAN University Network
SEAMEO RIHED	SEAMEO Regional Centre for Higher Education and Development
HEI(s)	Higher Education Institution(s)
IRO(s)	International Relations Officer(s)
VP(s) for IR	Vice President(s) for International Relations
CAGR	Compound Annual Growth Rate
SDGs	Sustainable Development Goals

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EXECUTIVE SUMMARY

The rapidly changed global context for IZN over the next decade prompted the decision to employ a futurist perspective for identifying strategic issues to be considered in the organization's next strategic plan. The specific research question--What issues are influencing the future of IZN in Thailand?—was explored using the following futurist approach and tools:

- Framing: sets the scope of the topic, boundary conditions and time horizon of the topic and clarifies the key research question in creating a visual domain map of research categories to explore
- Horizon Scanning: finds, collects, and analyzes signals of change relevant to the topic across the three time horizons
- Research included:
 - Literatures/document review: distills key insights regarding the topic
 - Interviews: including one-on-ones and group interviews
 - Trend analysis: identification and analysis of trends relevant to the topic
- Current and Emerging Issue Analysis: synthesis of the above work into list of issues to be considered in strategic planning
- Planning: recommendations within each issue description as well as recommended strategic options in three phases

Fourteen potential strategic issues were identified for consideration in the organization's next strategic plan, organized into three horizons, with the bolded issues prioritized by a staff vote.

Issues on Three Horizons

14. How might the rise of China 13. Where should we be "good Where do we want to go? enough" in IZN and where might we be world-class? culture to be more open to challenge and the "creative across all sectors of Thai 12. How can we spread IZN 11. How can we adapt the abrasion" needed for entrepreneurship? H3 2030+ innovation and impact IZN? society? making in what we teach re: IZN in track and respond to changes in international research capability? 10. How could a significant shift to making in how we teach IZN in adopting new learning formats? How might ASEAN influence our online learning influence IZN? How can we more effectively What changes should we be What should we do next? What changes should we be How can we build up our What are our priorities in H2 2025-2030 work/jobs/skills? the curriculum? the curriculum? IZN strategy? ٠. ۲. 6 4 φ. How can we shift outcomes discussion from "numbers" implementation be more How are we doing? What are our outcome H1 now to 2024 How can IZN successful? to quality? priorities? 'n

Key Issues Influencing the Future Internationalization of Higher Education

INTRODUCTION

The purpose of this project was to identify issues influencing the future strategy of Higher Education (HE) internationalization (IZN) for Thailand on behalf of Office of the Higher Education Commission/Bureau of International Cooperation Strategy (OHEC/BICS). OHEC/BICS has been involved in IZN for more than two decades. In recent years, the increasing uncertainty in the global context, perhaps best captured by the acronym VUCA (volatile, uncertain, complex, ambiguous), has presented challenges to the purpose of international approaches in general and IZN in particular. OHEC/BICS took the opportunity to work with a professional futurist to help identify and sort through the key issues changes in this VUCA global context for IZN in Thailand over the next decade (and slightly beyond) to identify key strategic priorities.

The geographic scope was Thailand, as influenced by ASEAN and the rest of the globe. The principal research question was:

What issues are influencing the future of IZN in Thailand?

The prioritized list of issues is intended as input to the future strategy of OHEC/BICS, to help it sort through the many competing priorities for IZN ahead.



There are many different definitions of IZN. This project uses Knight's (2015): the process of integrating an international, intercultural, or global dimension into the purpose, functions or delivery of postsecondary education. The project focused on both principal aspects of IZN:

 IZN Abroad focuses on cross-border education whether they be staff and student exchanges, collaborative degree programs, and/or international branch campuses; > IZN at Home (IaH) focuses on curriculum development and projects/ activities within the home institutions that incorporated the context of internationality and global citizenship.

When part of a broader strategy, IZN offers students, faculty and institutions valuable benefits. It can spur on strategic thinking leading to innovation, offer advantages in modernizing pedagogy, encourage student and faculty collaboration and stimulate new approaches to learning assessments. The infusion of IZN into the HE culture increases awareness of global issues and provides the opportunity to learn best practices from other educational systems. Educational research gets inherently internationalized through collaborations and partnerships amongst research teams. It benefits both HE and the nation/government--Table 1 below highlights some key benefit for each (Hénard et al., 2012).

Table 1

Why IZN matters

Benefits for higher education

- increase national and international visibility;
- leverage institutional strengths through strategic partnerships;
- enlarge the academic community within which to benchmark their activities;
- mobilize internal intellectual resources;
- add important, contemporary learning outcomes to student experience; develop stronger research groups

Benefits for government

- develop national university systems within a broader, global framework;
- produce a skilled workforce with global awareness and multi-cultural competencies;
- use public higher education funds to promote national participation in the global knowledge economy;
- benefit from trade in education services



Research approach

The approach was a customized version of the University of Houston's Framework Foresight method (Hines & Bishop, 2013). It involved framing, scanning, and research to produce a set of current and emerging issues with planning in the form of recommended actions. Each activity is briefly summarized below:

- Framing: described above, sets the scope of the topic, boundary conditions and time horizon of the topic and clarifies the key research question
- > Horizon Scanning: finds, collects, and analyzes signals of change relevant to the topic across the time horizon
- > Research included:
 - Literatures/document review: distills key insights regarding the topic
 - Interviews: including one-on-ones and group interviews, at the host institution and site visits, and including public roundtables
 - Trend analysis: identification and analysis of trends relevant to the topic
- Current and Emerging Issue Analysis: synthesis of the above work into list of issues to be considered in strategic planning
- > Planning: recommendations for action in three phases

FRAMING

Given the principal research question--What issues are influencing the future of IZN in Thailand ?--the framing activity sets the context and the set the direct for the scanning and research by developing a visual domain map.



Historical context

Futurists recognize the value of historical context in exploring the future. Era analysis is a technique used for highlighting the important aspects of the past for the future. An era is a generally cohesive period of time that begins and ends with discontinuous events. So the Cold War was a previous era that began with the events of 1946 - 49, such as the Berlin Airlift and the Soviet acquisition of nuclear weapons, and ended with the events of 1989 - 91, such as the fall of the Berlin Wall and the Soviet Union itself. An era is characterizes by a period of equilibrium, but it is eventually disrupted by a major discontinuous event, and a new era emerges. The technology breakthrough of the iPod, for example, marked the beginning of a new era in digital music (Bishop & Hines, 2012).

Kanjananiyot (2018) produced Table 2 comparing the eras of IZN. She identified five eras of IZN beginning roughly with the Westernization era up until 1980. She describes the current era as digitalization, which emphasizes the tremendous influence of ICT (information and communication technologies). Indeed, several of the issues identified as important to the future of IZN in this report reflect the strong influence of digital technologies.

Table 2 Comparing the eras of IZN (1)

Influencer	Westernization	Globalization	Free Trade	Regionalization	Digitalization
	IZN 1.0 Before 1980 • Western knowledge • Roles of international organizations • AID • One-way street outbound	Roles of international organizations • Boles of international organizations • Decreasing AID • More two-way exchanges at the senior leader level • Looking into quality	IZN 3.0 1996 - 2005 Increased regional cooperation with CLMV/GMS/IMT-GT Ranking emerged	IZN 4.0 2006 - 2015 • ASEAN on radar • More P2P • Ranking high on the agenda • International standards • Competition • Massification of degree programs	• Context-oriented collaboration • Exchanges including 'Virtual Mobility' for 'laH for All' • Digital means heightened for IZN/laH
Type of Cooperation/ Relationship	Mostly by high level contacts/ personal	High to middle level More formal interactions with exchanges of visits Activity-based	More formal meetings and formalized with MOUs Bi/Tri/Multi-lateral Regional and national plans	Start of intra- exchanges Look west for standardization Look more East for short-term exchanges AUN QA	Context-specific strategic plans for common interests More equitable exchanges Platforms for learning & sharing, knowledge and innovation More regional bodies as bridges A More integrated IZN efforts within and across institutions

Table 2 Comparing the eras of IZN (2)

OHEC's	Westernization	Globalization	Free Trade	Regionalization	Digitalization
	• No specific written IZN policy	First IZN seminar in 1991 IZN policies stated in 5 and 15 year Plans Attempts to respond to globalization e.g. host AUN / SEAMEO RIHED; IZN status of universities identified by foreign expert	Policies on international cooperation scattered under different items of the ministry's plans Big projects to promote mobility in response with globalization and regional cooperation	Policies on international cooperation focus on entering ASEAN Project-based effort from host of UMAP International Secretariat, Best Practice Projects, to cooperation with foreign experts from US and EU	• IZN evident as OHEC's main policy aiming at lath, yet not stated in the Plan • Staff training with hands-on experiences in regional/ international forums • Increased cooperation and understanding with HEIs and foreign partners
Type of Cooperation/	IRO 1.0 Reactive	IRO 2.0 Reactive	IRO 3.0 Reactive	IRO 4.0 Reactive + Proactive	IRO 5.0 Proactive
Relationship	International cooperation led by ministry Small unit to serve on logistics and some content-based for policy makers	• Top-down with ministry's policies and related activities • IR offices set up and staff selected from English proficiency and mainly social sciences graduates • Start of having VPs for IR	VPs for IR with policies based on President's terms IR offices expanded to cover demands on logistics and small content-support team	Growing capabilities of IROs for intra- regional cooperation and exchange management; more to wards coordination and presentation sides More content Starting strategic approach as support unit	Macro picture of national and university directions Integrating vision and mission with Quality of IZN and IZN of Quality Increased roles to work on strategic issues like risk assessment, governance, etc.

Domain Map

The **domain map** is a visual representation of the topic organized by categories and sub-categories. It provides a guide for the research and scanning to ensure that key aspects of the topic are adequately covered.

The seven primary domain categories are:

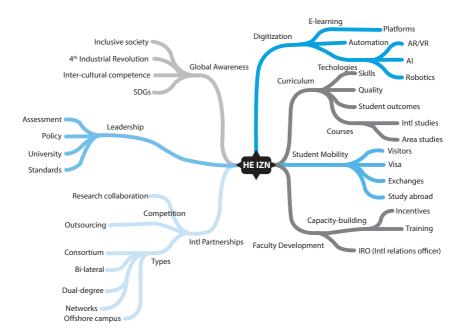
- > **Digitization:** the suite of technologies involved in the conversion of information into a digital format
- > Curriculum: topics making up the course of study in HE
- Student mobility: opportunities or obstacles for students to study abroad
- > Faculty development: opportunities or obstacles for faculty to improve their performance
- International partnerships: collaborations of higher education institutions with other universities or the private or public sector in other countries
- Leadership: role of leaders in HE and other stakeholders organizations with influence on IZN
- Global awareness: an understanding of how environmental, social, cultural, economic and political factors impact the world as it related to HE

Fig. 1 Domain Map



Figure 1 outlines the seven primary categories and is typically used to provide a simple explanation of the topic to the intended audience. Figure 2 provides additional detail, the various sub-categories of the primary categories. The detail provides additional guidance that is particularly useful during scanning, which involves searching for signals of change related to the topic. In addition to guiding the search, the categories and sub-categories are used as keywords to organize the results of the scanning. This makes it easier to guickly find the changes related to particular topics.

Fig. 2 Detailed Domain Map



The seven categories outline the particular topic, in this case the IZN of HE. Futurists also scan for change in the larger context around or outside of the topic. That external context is typically organized using the STEEP acronym. STEEP focuses on the social, technological, economic, environmental, and political context. Futurists use STEEP as a shorthand for considering factors outside of an industry—in this case HE IZN--that may influence its future. Our experience as futurists suggests that many times the most significant changes or disruptions to an industry come from outside, such as an economic boom or bust, a regulatory swing, design or style shifts, or a new technological development in another industry that could be adapted.

SCANNING

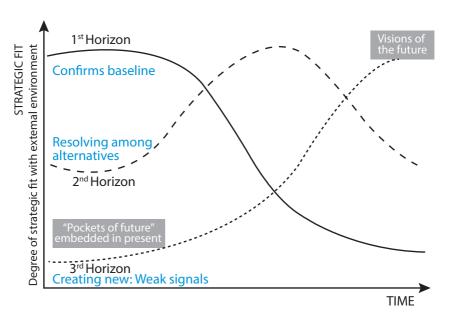
The domain map provides a framework for organizing and guiding the horizon scanning, which is the process of identifying, collecting, and analyzing the "signals of change" in the topic space. More than 75 scanning hits, which included articles, blog posts, videos, reports, etc., were collected into a cloud-based library for annotation. The scanning hits provided useful ideas about how the future could be different that are important for developing the set of issues.

Horizon scanning involves the identification, collection, and analysis that capture the "signals of change." A "scan hit" is an individual piece of information that captures a signal of change. They may be news or journal articles, blog posts, videos, reports, etc. The signals have varying degrees of evidence to back them, that is, strong signals of change are supported by multiple and credible sources. In contrast weak signals have less support, and there are typically lots of them. A well-rounded horizon scanning process includes both.

It is important to ensure a balanced search across the next decade. The tagging system based on the domain map categories provides a mechanism to track the number of hits and see if any category is being neglected. Another useful application of tagging is using the Three Horizons model, shown in the Figure 3 below, to indicate which time horizon the scan hit refers to. The three time horizons are:

- Horizon One (H1): the short-term future of roughly the next five years in which the current system or way of doing things in an industry largely prevails
- Horizon Two (H2): the mid-term future of transition from five to ten years out in which the existing system is breaking drown and new approaches are making inroads.
- Horizon Three (H3): the long-term future from the next ten years and beyond in which a new system will eventually take root





Adapted from Curry, Hodgson (2008). Seeing In Multiple Horizons, Journal of Futures Studies 13 (1), 1 - 20

The scan hits focused on the short term, H1, confirm what futurists refer to as the baseline future—the future of continuity with no major surprises. Those focused on the medium term, H2, indicate the potential for a shift to what futurist call alternatives futures—futures in which there is a surprise or discontinuity that shifts the topic in a different direction. Finally, those hits focused on H3 suggest an entirely new type of future, but the evidence for them in the present is fairly weak, thus they are referred to as weak signals.

Fig. 4 Diigo Scanning Library



More than 75 scanning hits were collected into our Diigo library. Figure 4 shows the Diigo site logo, the top 10 tags, and a sample entry. The top 10 revealed popular topics from the scanning. As we would hope, the tags reflect a mix of domain map categories, suggesting a balanced approach covering key topics.

Fig. 5 Sample Scanning Headlines



Figure 5 shows some of the headlines of the scanning hits. The scanning hits provide clues as to how the future might be different. While a single scanning hit might be interesting, when several gathered from different sources are pointing in a consistent direction, we pay much closer attention.

RESEARCH

There were three principal research activities:

- > Literatures/document review: distills key insights regarding the topic
- > Interviews: including one-on-ones and group interviews, at the host institution and site visits, and including public roundtables
- Trend analysis: identification and analysis of trends relevant to the topic



Literature review and interviews

The literature review included dozens of reports and articles from the OHEC/BICS library supplement by a fresh search based on the domain map. The full list is in the works consulted. It is beyond the scope of this work to detail the literature review; the insights gained were applied to the identification and support for the issues.

The literature search was supplemented by daily conversation with my host and staff about the issue influencing the future of HE IZN. Several interviews were conducted, including one-on-ones and group interviews, both at the host institution and site visits. Among the key interviews were:

- Ms. Porntip Kanjananiyot, Former Executive Director of Thailand–United States Educational Foundation
- Dr. Choltis Dhirathiti, Executive Director of ASEAN University Network (AUN)
- Assoc. Prof. Dr. Pornapit Darasawang, Vice President for Internationalization, King Monkut's University of Technology Thonburi (KMUTT)

 Assoc. Prof. Dr. Nopraenue Sajjarax Dhirathiti, Acting Vice President for International Relations and Corporate Communication, Mahidol University (MU)

Two public roundtables were convened to gather input and feedback from a larger audience. Each session inspired new insights as well as helping to confirm existing hypotheses.

- The research included visits to two prominent Thai universities: King Mongkut's University of Technology Thonburi and Mahidol University. The working sessions at both places once again enabled the validation of findings to date, raised question about others, and pointed toward new directions to investigate.
- A morning-long symposium was arranged for me at OHEC headquarters in which a dozen prominent experts and academics were convened to discuss future issues influencing internationalization. The researchto-date was used frame a discussion of what seemed to be key future issues and guided a lively conversation about them that provided invaluable feedback for the project.



Trends are statements about a change and the direction it is moving. It describes whether the change is increasing, decreasing, or holding steady. The scanning process will sometimes uncover trends, but more commonly it suggests topical areas in which to look for trends. The trends should also be reflective of the domain map, as an effort is made to make sure the trend inventory is balanced across the map.

The trends are collected into a trend inventory, which provides a set of inputs informing the identification of issues. Based on literature, articles and reports, a total of 78 trends were collected and organized in a modified STEEP (social, technological, economic, education instead of environmental, and political) as shown in Table 3.

Table 3 Trend Inventory (1)

Trend Name	Description
	Social
Active aging	Today's seniors are much more active than their predecessors, in part due to the aging of health conscious baby boomers.
Age compression	Children are growing up "faster" than before, with higher levels of parent funded spending, greater sophistication in their embrace of technology, and coping with greater pressures to succeed.
Aging population	By 2050, the number of 60+ individuals will increase by a factor of nearly 10, and the 80+ by a factor of 26.
Alternative pathways	Trade school (vocational school) offers an enticing alternative pathway for high school grads.
College costs rising	Cost of college is growing rapidly, roughly 8x as fast as wages.
Educational access	Access to education at all levels-elementary, high school, and college-is generally increasing.
Experiential lives	People are increasingly seeking and collecting "experiences."
Skills mismatch	There is a growing gap between what employers demand vs. what education provides.
Soft skills	Employers want new grads to have better and increased knowledge of soft skills.
Student enrollment	Student enrollment in college is decreasing in many nations overall.
Women outpacing men in education	Women are making up a growing percentage of high education enrollment.
Convenience demands	Demand for convenience is extending to more products and services, and rising in emerging as well as established markets.

Table 3 Trend Inventory (2)

Trend Name	Description
	Social
Decline in youth population	Aging and declining fertility are leading to a decline in the youth population (aged 15 - 24 years old), with Africa the only region where the youth population will continue to grow until 2025.
Declining household size	Household size is generally decreasing worldwide.
Gamification	Gamification—making work and daily life game-like—is spreading, and is being used in a growing variety of applications.
Thai population aging fast	According to the United Nations, Thailand is the world's third most rapidly ageing country.
	Technological
Al	The artificial intelligence market is growing and expected to reach USD 190.61 billion by 2025 from USD 21.46 Billion in 2018, at a CAGR of 36.62% during the forecast period, due to big data, cloud-based applications, and increasing demand for intelligent virtual assistants.
Augmented reality	Augmented reality (AR) systems supplement a user's real world with digitally created visual and aural information including text, graphics, 3-D animation, and sounds.
Blockchain	Blockchain, "a secure continuously updated record of who holds what" is increasingly moving into new applications outside of cryptocurrency.
Immersive digital experiences	Digital experiences are becoming more immersive, with innovations in digital interfaces that give users new ways to interact with digital content, making computing a sensory experience.

Table 3 Trend Inventory (3)

Trend Name	Description
	Technological
Interface anywhere, any way	Intuitive interfaces will become the dominant form of interaction with consumer electronics and computing devices, freeing consumers from conventional I/O devices (e.g., keyboard, mouse, screen, remotes) by using a combination of gesture, touch (often with the addition of haptic feedback), and verbal commands.
R&D globalization continues	A growing number of companies are investing more of their R&D investment to regions where their sales and manufacturing were growing fastest and where they can access needed technical talent.
Truth increasingly blurry	Growing use of online sources make it increasingly difficult to find "the truth".
Ubiquitous information	The world is increasingly information-driven and people are getting more of the information they want, where and when they want it.
Virtual worlds	Virtual worlds, such as Second Life, are becoming more important as venues for business, social, and recreational activities.
	Economic
Automation	Increasing number of jobs threatened by automation, with the most popular estimate suggesting nearly half are vulnerable.
Collaborative work	Work is increasingly collaborative, reinforced by Millennials who prefer teamwork and collaboration.
Co-working collectives	Remote workers are moving out of the home office to third spaces from which they can telecommute in comfort, be it from the café, car, or co-working collective.

Table 3 Trend Inventory (4)

Trend Name	Description
	Economic
D2C direct-to- consumer	In a world where consumers want what they want, when they want it, with speed, some big brands are seeking to cut out the middleman.
Digital nomads	Digital nomads, workers who utilize ICT to work in a mobile fashion from a myriad of different locations, are increasing.
Emerging global middle class	The growth of emerging markets is transforming the distribution of economic power and wealth, with an increasing percentage of the world's consumers in emerging markets.
Emerging market, white collar	As economic growth continues in the BRIC and other developing markets, emerging market workers are moving up the value chain into white-collar work.
Experiential marketing	As products and services become commoditized, companies are adding value and distinction by marketing experiences rather than just products.
Global competition	Competition is increasingly global, reaching beyond national and regional borders. (Flatworld: Playing field for most markets is increasingly open.)
Income inequality	In the U.S., income inequality has been growing significantly, by every major statistical measure, for some 30 years.
Innovation acceleration	The time it takes for an idea or trend to go from fringe to mainstream is decreasing.
Job hopping	Gen X workers are more likely than Millennials or Baby Boomers to change jobs. More than 20 percent of Generation X workers have actively sought out new positions in the last year, the highest level of any demographic group.

Table 3. Trend Inventory (5)

Trend Name	Description
	Economic
Market transparency	Consumers are increasingly able to gain in depth information about products, simplifying the process of price comparison and checking on the corporate reputations and practices.
More education = more work	The most educated quarter of Americans works on average two hours per day more than the lowest educated quarter of the population.
More flexible work schedules	Employees are asking for more flexible work hours, and employers are providing more flexible-hour opportunities. In the last five years, this trend has picked up more and is continuing the more Gen Z and Millennials become a bigger portion of the workforce.
Placeshifting	Remote technologies allow individuals to work, learn, socialize, etc., from many different locations and generally break free of geographic constraints.
Reputation systems	Reputation systems are becoming increasingly important for commerce, with ratings system for credit, buying services, and social status.
Sharing	The knowledge economy is driving a move away from ownership of resources—including physical assets such as space and technology, people, and even IP—and toward greater sharing, such as with fractional ownership.
Subscription services	An increasing number of business models are relying on subscription rather than ownership or pay-per-use.
Talent shortage	Companies in North America, Europe, and Japan are finding it increasingly difficult to find workers with the required skills, education, and talent, particularly in high tech.

Table 3 Trend Inventory (6)

Trend Name	Description
	Economic
Telecommuting	Telework is growing due to technological, lifestyle, and policy shifts, with improved technologies, more people seeking better work/life balance, and organization saving space.
Virtual work	As those entering the workforce continue to be increasingly familiar and adept using technology the incentive to transition into a virtual workspace will become even stronger as drivers such as high travel costs, increased globalization and environmental concerns increasingly become more profound.
Alternative credentialing	Alternative credentialing like certificates, badges are playing large role in education standards.
Alternative funding	HE is increasingly turning to alternative funding sources.
Colleges closing	Both for-profit and smaller liberal arts non-profit colleges are closing, the former due to changes in loan requirements and the latter due to declining enrollments and rising costs.
Competency- based education (CBE)	CBE based on demonstrating knowledge rather than time-in-seat lowers costs and reduces completion time for students.
Emerging markets invest in HE	Emerging market governments are improving the quality of higher education in a bid to attract more international students.
Faculty employment	Faculty hires are changing with more non-tenure and part-time faculty vs tenure-track.
Flipped classroom	The flipped classroom is a student-centered approach to teaching that involves reversing the design of the learning environment, allowing students to engage in activities, apply concepts, and focus on higher level learning outcomes during class time.

Table 3 Trend Inventory (7)

Trend Name	Description
Educational	
Free tuition	State universities (and also some private) are experiment with free college tuition.
International Branch Campuses (IBCs)	85% of the IBCs added between 2007 and 2017 were set up in emerging markets.
Income Share Agreements (ISAs)	ISAs, in which student agree to pay tuition by giving a percentage of income once they graduate, are helping reduce the risk associated with student loans.
Institutional accountability	HE is being scrutinized more than ever by students, parents, and regulators.
Local markets work with HE	A new education model emphasizing practical skills to support the high-tech knowledge economy is emerging.
Mergers & acquisitions	The total number of mergers and acquisitions from just 2010 – 2017 has doubled the activity that occurred in the prior decade.
Microlearning	Education offerings are increasingly being offered in smaller snippet to improve relevance and save time.
MOOCs	MOOC's are evolving to smaller classes and are charging for attendance.
National IZN strategies	National governments are increasingly designing strategies that include or focus on the IZN of HE.
Online education	Online education has become an increasingly accepted option, especially when "stackable" into degrees.
Personal Learning Network (PLN)	PLN are emerging as a key pedagogical tool for group learning.
Push for collaboration with employers	As employers' experience challenges in hiring higher education graduates with workforce-ready skills, there is a push for more cooperation between industry and higher education.

Table 3 Trend Inventory (8)

Trend Name	Description
Educational	
Re-skilling	Employers are demanding employees re-skill and/or upskill.
STEM focus	Education is focusing on offering more STEM curricula.
Transnational education	Pathway programs facilitate increasing transnational education, which serves as an additional revenue stream for universities.
Political	
Declining trust in formal institutions	As seen in the political and religious institutions, more and more Americans have less trust in the formal institutions.
Emerging market nationalism	As W2 countries expand and take their place on the world stage, national pride turns into nationalism. As W2 countries become international powers in their own right, their agendas will not always agree with those of traditional international leaders.
Gross National Happiness	Governments are considering measures of happiness in addition to or instead of GDP as a success criterion.
Public finance	Higher education is generally facing a decline in public funding.
Regulation continues to grow	Increasingly complex societies require more regulation to manage them.
Soft paternalism	There is growing interest in using regulations to "nudge" citizens towards better decision-making. One approach, used with pensions, is to dispense with formal enrollment, and instead have enrollment become automatic, with an opt-out option if wanted.
Visa Denial	Stricter visa policies in some countries are creating barriers to student mobility.

ISSUES

The key deliverable for the project is a list of key issues influencing the future of HE IZN. The list was organized according to the Three Horizons framework introduced above. For the list, the time horizons were sets as follows, with each characterized by a framing question:

> H1, now to 2024 how are we [currently] doing?

> H2, 2025 to 2030, what should we do next?

> H3, 2030 and beyond where do we want to go?

Fourteen issues were identified: three in H1, seven in H2, and four in H3. This distribution works nicely in that the bulk of the issues in H2 aligns with the typical emphasis in foresight project work on "what's next." The H1 issues are existing business that has not yet been taken care of. The H3 issues are more removed from the daily concerns, although there are steps that can be taken to address them in the present if the organization deems that important. But it is the H2 issues that are most likely to be new additions to the next strategic plan given their 5 - 10 year time horizon. The bolded issue in each time horizon was ranked by as the most important strategic issue in a working session with the OHEC/BICS staff.

Table 4 Issues on Three Horizons

H1 now to 2024 H2 2025-2030 H3 2030+ How are we doing? What should we Where do we do next? want to go? 1. How can we shift 4. What changes How can we adapt outcomes discussion should we be the culture to be from "numbers" to making in how we more open to teach IZN in the challenge and the quality? curriculum? "creative abrasion" 2. What are our needed for outcome priorities? 5. What changes innovation and should we be 3. How can IZN entrepreneurship? making in what implementation be we teach re: IZN 12. How can we spread more successful? in the curriculum? IZN across all sectors of Thai 6. How can we society? more effectively 13. Where should we track and respond to changes in be "good enough" work/jobs/skills? in IZN and where might we be 7. How might ASEAN world-class? influence our IZN strategy? 14. How might the rise of China impact 8. How can we build 17N? up our international research capability? 9. What are our priorities in adopting new learning formats? 10. How could a significant shift to online learning influence IZN?

The remainder of this section characterizes each of the issues organized by time horizon. Each issue is briefly described in a few paragraphs with supporting graphics as appropriate. Then potential "to do" items are suggested as potential responses to each issue in a bulleted format.



H1 now to 2024: How are we doing?

These are important issues on the current agenda that remain unresolved. The three H1 issues are:

- 1. How can we shift outcomes discussion from "numbers" to quality?
- 2. What are our outcome priorities?
- 3. How can IZN implementation be more successful?

1. How can we shift outcomes discussion from "numbers" to quality?

Numbers, such as students abroad, are a convenient way to measure outcomes. Fig. 6 showing increasing numbers of students of over time, and Fig. 7 showing student recruiting targets are the typical kinds of numbers used in discussions around outcomes. The discussion around progress with IZN is often framed by the absolute numbers of foreign or international mobile students. The accounting for the actual transfer of knowledge across borders–traditionally the core element of internationality of higher education–is taken for granted (Teichler, 2017).

The challenge was aptly expressed by an interviewee that: "like it or not, we must be realistic that we still live in the numbers world and must play the ranking game." But is it the right way? It is apparent that many involved in IZN recognize that the reliance on numbers, while convenient, is not necessarily the most useful way to measure outcomes. But there are not readily available outcomes for measuring quality that can used instead of, or in addition to the numbers.

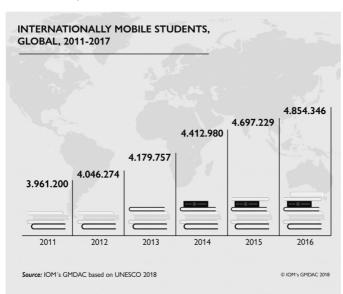
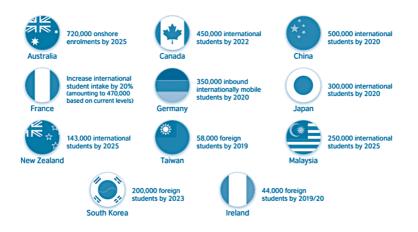


Fig. 6 Internationally Mobile Students

Source: International students. Migration Data Portal, accessed June 6, 2019 from https://migrationdataportal.org/themes/international-students

Fig. 7 Selected International Student Recruitment Targets



Source: Weimer, 2017.

TO DO

- Acknowledge that "students abroad" is the beginning, but that there is much more to IZN. Do not reject all use of numbers/quantitative measures, but careful point out their limitations
- > Make the case that "quality takes time." Quality goals, such as knowledge transfer, are not easily captured in raw numbers or one-time measurements, as they develop over a long period of time.
- Identify and develop a set of qualitative indicators for measuring quality in IZN. Begin by identifying key quality outcomes that should be tracked.
- Integrate EdPEx to be context specific and use the numbers when needed for some universities to adopt it. Top universities which are ready have moved forward and some need to be encouraged.

2. What are our outcome priorities?

This issue was ranked as the key strategic issue by the OHEC/BICS staff as the most important strategic issue in Horizon One. Simply put, the issue is that the changing context for IZN over the next 10 years should be accompanied by changes in IZN priorities. There is a sense that the priorities of the past have perhaps outlived their usefulness, and that it is time to develop more future-oriented ones.

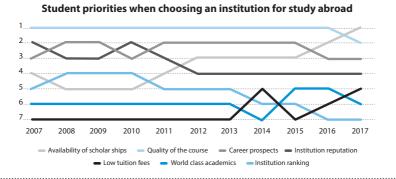
Among the current priorities for Internationalizing are: (Marmolejo, 2012; McDermott, 2016)

- > improve student preparedness
- internationalize the curriculum
- > enhance the international profile of the institution
- > strengthen research and knowledge production

- > international awareness and diversification of faculty and staff
- improving teaching & learning

A British Council report claims that the quality and value (including costs, career prospects, and student experience) of an institution have increasingly become important in the student choice process (Weimer, 2017). New priorities for IZN should take the changing priorities of students into account.

Fig. 8 Students Priorities



Source: British Council Student Insight

Note : The 1 through 7 scale indicates the ranking of the answer in that particular year, eg. 'quality of the course' was the top selected answer from 2007 through 2016, inclusive.

- Establish new future-oriented IZN priorities. Based on the research for this report, the following five future-oriented priorities are offered as a starting point:
 - 1. Inter-cultural competence
 - 2. Employability
 - 3. International research capability
 - 4. Spur innovation
 - 5. Community engagement (Lifelong learning)

3. How can IZN implementation be more successful?

Like many countries, Thailand struggles with fragmented responses to IZN and the "discrepancy between rhetoric and reality" in policy-making (BICS, 2013). A common theme from the interviews and discussions was that implementation tended to be uniform across universities, but that it needed to be customized to the particular university context. Some of the other common challenges in implementation are:

- > Lack of vision, leadership
- > Lack of communication from policy to university
- > Lack of infrastructure & resources
- Benefits seen as limited to specific groups
- Too abstract
- Lack of understanding among bureaus and offices within OHEC

- Customizing IZN to unique needs of each university. This would likely require additional staff support in order to work more closely with each university to understand and adapt guidelines.
- > Highlight role of IRO as internal champion
- Create and publicize case examples where IZN has been successful. Much of the resistance to IZN, or any change initiative is that the intended audience does not clearly see the benefits.
- Develop networking models, such as the AUN to help understand needs of stakeholders and to help implement agreed-upon responses.
- > Focus on developing IZN culture and mindset over the longer term.
- Create an internal process to enable OHEC senior leaders and staff to understand the concepts of IZN and how it can be integrated into OHEC's strategies and key actions.



H2 2025-2030: What should we do next?

The H2 issues are especially important in that they are most likely to be new additions to the next strategic plan given their 5 - 10 year time horizon–assuming that H1 issues are already being dealt with to some degree. While they are not completely new to the IZN discussion, they are likely to become more important in the next five to ten years. The seven H2 issues are:

- 4. What changes should we be making in how we teach IZN in the curriculum?
- 5. What changes should we be making in what we teach re: IZN in the curriculum?
- 6. How can we more effectively track and respond to changes in work/ jobs/skills?
- 7. How might ASEAN influence our IZN strategy?
- 8. How can we build up our international research capability?
- 9. What are our priorities in adopting new learning formats?
- 10. How could a significant shift to online learning influence IZN?

4. What changes should we be making in how we teach IZN in the curriculum?

There is overwhelming evidence that teaching practices are changing. In particular, a review of international practice in teaching reveals an increasing influence of technology-based learning tools. The challenge ahead for teaching in general is how to adapt pedagogy to align with the collaborative and interactive learning tools. Students are often more comfortable with technology than their instructors, and want more interactive approaches–such as video, VR (virtual reality), AR (augmented reality), and AI.

The issue for IZN is how its advocates can promote the use of the emerging tech-based tools and approach. A common theme in the interviews and discussions was that IZN cannot be taught per se, but must be embedded throughout the curriculum.





Source: Stanford Neurosurgical Simulation and Virtual Reality Center

- Develop advance online learning pilot programs with selected universities to build successful case studies. In introducing any significant change, it is a useful practice to start small with pilot projects and "learn by doing."
- > Provide technical support to faculty not comfortable with the technology. This is likely to be a significant undertaking that will take time to develop, and is likely to be an ongoing activity rather than a one-time event. But if faculty are not comfortable with the technology, they are not likely to use it.

5. What changes should we be making in what we teach re: IZN in the curriculum?

There is typically a great deal of emphasis on improving the teaching of technical skills. This often takes the form of emphasizing the importance of the STEM skills. In the last few years, the influential agenda of the World Economic Forum's Fourth Industrial Revolution has added further importance to developing technical skills. In our increasingly tech-driven, it is indeed important to develop these technical skills.

At the same time, the World Economic Forum recognizes the soft skills are also important to the Fourth Industrial Revolution (see Figure 10).

Fig. 10 Seven Skills for the 4th Industrial Revolution.



Source: Achieve.pk

Various researchers have defined the soft skills as 'employability skills,' 'key skills,' 'soft skills,' 'generic skills,' 'key competencies,' 'transferable skills' or 'personal attributes.' (Mohan et al., 2017). The key concept is being able to function successfully in the workplace alongside having the necessary technical skills.

Similarly, interviews and discussions revealed a concern that the emphasis on technical skills can overshadow the important of the soft skills relating to people and culture. The ideal outcome is a balance between the technical and soft skills. There are countless examples of sophisticated technical approaches failing because people didn't understand how to use the new tools and the culture did not accept them. The issue for IZN is how to help balanced the curriculum to accommodate both types of skills. For example, one interviewee noted how IZN helps build the soft skill of inter-cultural competence, observing that "people come back different."

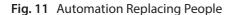
TO DO

> Promote the development of soft skills along with technical skills in the implementation of IZN.

6. How can we more effectively track and respond to changes in work/jobs/skills?

This issue was ranked as the key strategic issue by the OHEC/BICs staff as the most important strategic issue for H2. There was strong consensus that IZN and the country as a whole need to improve its ability to more quickly recognize and respond to changes in the world of work. In particular, there are not adequate organizational structures and systems in place for tracking changes and coordinating needed responses.

The nature of work is undergoing perhaps unprecedented changes. The potential impact automation is one of the major changes taking place. It has been estimated that perhaps 70% of the jobs of the future are not even described yet. Nonetheless, organizations need to figure out how to better prepare people for those jobs. Failure to do so could lead to job loss, as machines supplant people lacking the skills needed for the future. There is often a lag between how the job market is evolving and how education systems adapts to meet the emerging needs of the marketplace. One common response suggested in the interviews and discussion was working closer with industry, which is happening already to some degree, but could be ramped up.





Source: Creative Commons

- Invite local businesses to be on an IZN advisory board. While some universities are already doing this, there may be an opportunity for IZN to adapt this practice as well.
- Develop a horizon scanning capability focused on the future of works, jobs, and skills. There is a clear capability gap here. IZN advocates could develop this capability as an offering to universities and the government.

7. How might ASEAN influence our IZN strategy?

Given the national commitment to ASEAN, it may make sense that IZN adopt a more regional focus, that is, emphasize programs within the ASEAN country network. While differences among countries are a factor in hindering cooperation in the short term, it is likely the commitment to ASEAN is here to stay. The interviews and discussions suggested that Thai students were not generally as interested or aware of other cultures, which should be addressed.

Another consistent theme emerging from the interviews and discussions is that Thailand may have a unique opportunity to ramp up its current focus on the four "catch up" countries (Cambodia, Laos, Myanmar, and Vietnam) and build from that foundation to work not only with ASEAN countries but gradually expanding outside the ASEAN region.

Fig. 12 Students Abroad in ASEAN Region

Countries	Number of local students abroad		Number of international students	
	Until 2012 ¹¹	Present	Until 2012	Present
Brunei	-	3,698	372 (2011)14	349
Cambodia	-	5,561	-	-
Indonesia	43,000 (2011)	46,232	7,079 (2010)	-
Lao PDR	1,101 (1999)	6,129	827 (2011)15	451
Malaysia ¹⁶	61,000 (2011)	64,655	86,923	124,133
Myanmar	1,60017	7,582	65 (2010) ¹⁸	-
The Philippines	8,443 (2008)	16,308	2,665 (2008)	-
Singapore	21,000 (2011)	25,057	84,000	80,000 (2014)20
Thailand	28,000 (2011)	29,768	10,967 (2007)	12,274
Vietnam	61,000 (2011)	70,328	500 (2011) ²¹	5,624

Source: Atherton et al., 2018

TO DO

- Emphasize study of other cultures in the K-12 curriculum to build awareness
- > Explore of the possibility develop a hub, first with the "catch-up" countries (CLMV) and expanding it over time to all of ASEAN and beyond (e.g., ASEAN +3, ASEAN +6).

8. How can we build up our international research capability?

Building up the research capability involves both developing the faculty experience as well as the university infrastructure as whole. Many faculty prefer teaching over research, so it may take time to build up faculty involvement. One interviewee observed that "student exchanges are a starting point for building research relationships." But that is only a starting point.

Seven principles for good practice in research capacity strengthening (Essence, 2014).

- > Network, collaborate, communicate and share experiences
- Understand the local context and accurately evaluate existing research capacity
- Ensure local ownership and secure active support
- > Build in monitoring, evaluation and learning from the start
- Establish robust research governance and support structures, and promote effective leadership
- Embed strong support, supervision and mentorship structures
- > Think long-term, be flexible and plan for continuity

To provide context on where Thailand stands in terms of the global competiveness of its economy, below are its global ranking key future-oriented pillars from the World Economic Forum's (2019) Global Competitiveness Report, with Malaysia's ranking provide in parenthesis for additional context:

- > Skills 66 (Malaysia is 24)
- Digital skills 61 (Malaysia is 11)
- > Skills of university graduates 51 (Malaysia at 12)
- Critical thinking 92 (Malaysia at 16)
- > ICT capability 62 (Malaysia at 32)
- Innovation Capability 51 (Malaysia at 30)

There is clearly plenty of work to be done in improving Thailand's global competitiveness. Building its international research capability is an important contributor, and can be a key focus of future IZN efforts.

- Continue promoting student exchanges as a starting point for building research relationships
- Support individual faculty in building up their own international networks. This important component will likely require an increase in IZN support staff to effectively carry out.
- > Work with university research programs in developing step-by-step approaches. The coordination of effort, to avoid unnecessary duplication and maximize efforts could be a key opportunity for IZN.
- > Build partnerships with international businesses to incorporate learnings into curriculum and research

9. What are our priorities in adopting new learning formats?

From micro-credentials to boot camps to certificates to lifelong learning, there are increasing alternatives to traditional university degree programs. Private companies can often offer more focused skill-building options tailored to employer needs more rapidly and cost-effectively than universities. For employers in desperate need of skilled employees, they are increasingly willing to accept these alternative credentials.

Universities typically perceive these alternatives as threats to the existing way of doing things rather than opportunities. One interviewee observed that the "survival of universities is at stake with these new formats." But there is no reason that universities cannot adopt such formats themselves, although it may require setting up new organizational structures and guidelines.

A related opportunity is the global trend to lifelong learning, which has yet to catch on in a big way in Thailand. As the population ages, and there are few new students for higher education, it will be necessary to look to adult learners to fill the gap. One interviewee observed that "lifelong learning could be platform for the aging," who are not currently well served by higher education.

Fig. 13 Coding Bootcamps



Source: Creativy Commons

TO DO

- > **Develop pilot programs** with selected universities to test different learning formats, such as boot camps, and certificate course.
- Provide training and technical support to faculty not comfortable with the technology
- Develop a strategy for a lifelong learning program to serve aging society

10. How could a significant shift to online learning influence IZN?

Online learning provides convenience and just-in-time learning and enables institutions to extend their reach outside their traditional geography. There was a tendency among the interviews and discussions to be somewhat dismissive of the impact of online learning. This probably reflects the fact that it is still in its relative infancy in Thailand, but lessons from other countries suggest the early growing pains are overcome with time, and that online learning will be a force to be reckoned with in the not-too-distant future.

Thailand Cyber University is the current focus for online activity (see https://www.thaicyberu.go.th/en). There is also the development of hybrid schools that offer both the Thai MoE curriculum and a fully accredited international curriculum (Maxwell, 2015). These are promising developments, but there is much more to be done. While it may seem threatening to the existing way

Fig. 14 Thailand Cyber University



of doing things in the short term, it also provides opportunities to extend the reach of Thai universities and extend the capabilities of IZN. At the same it offers competitors the opportunity to offer their courses within Thailand and the region.

TO DO

- Develop pilot programs with selected universities to test different online learning approaches. It is not necessary to convert overnight, but rather advance in small steps, such as starting with individual class, then entire courses, and eventually entire programs.
- Provide technical support to faculty not comfortable with the technology
- Develop policies on online offerings from foreign universities. One could imagine a virtual "invasion" by foreign universities if sufficient controls are not in place.



H3 2030+: Where do we want to go?

The H3 issues are not likely to be prominent in the next strategic plan, but bear watching. They may present opportunities or threats that suggest preliminary steps be taken to address them in the present. The four H3 issue are:

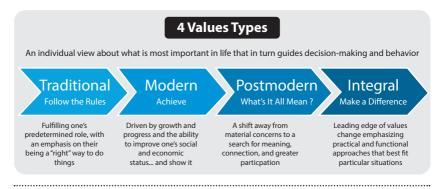
- 11. How can we adapt the culture to be more open to challenge and the "creative abrasion" needed for innovation and entrepreneurship?
- 12. How can we spread IZN across all sectors of Thai society?
- 13. Where should we be "good enough" in IZN and where might we be world-class?
- 14. How might the rise of China impact IZN?

11. How can we adapt the culture to be more open to challenge and the "creative abrasion" needed for innovation and entrepreneurship?

IZN is perhaps more about promoting cultural learn that it is about any particular set of activities. One challenge noted in the interviews and discussion is the tendency to favor a unitary view, which makes it difficult for people to offer alternative views, particularly for subordinates in front of superiors. According to one interview, the autonomous university movement has not encouraged innovation as hoped, as they have largely stuck with existing frameworks.

Research into trends in global values suggests there is tension between traditional, modern, and postmodern values. Most higher education paradigms are focused on the modern values (e.g., obsession with rankings), but emerging postmodern and integral values are changing that (Hines, 2011).

Fig. 15 Global Values Types



Source: A. Hines

Figure 16 below shows Thailand's position compared with other countries on a plot of global values. It indicates Thailand is in the early stages of embracing modern values emphasizing achievement, but not far removed from traditional values emphasizing following the rules. This position seems to accurately represent the tensions in the country between embracing

newer modern values around competition, but at the same time maintaining the traditional value of not questioning authority and operating within established rules.

Thailand 2,5 2,0 Protestant Europe Confucian Traditional vs. Secular-Rational Values Catholic Europe Postmodern English Speaking Modern African-Islamic -2,0 Traditional -2,0 -1,5 -1,0 -0,5 0,0 1,5 2,0 2,5 Survival vs. Self-Expression Values

Fig. 16 Thailand on the World Values Survey Map

Source: Adapted from World Values Survey,

see http://www.worldvaluessurvey.org/WVSContents.jsp

- Develop a strategy for making IZN a part of the HE culture rather than a stand-along set of activities by integrating with student success, academic affairs, curriculum development, faculty development, and research.
- > Start with K-12 by introducing IZN to students at a younger age so that they understand it by the time they get to the university level.

12. How can we spread IZN across all sectors of Thai society?

This issue was ranked as the key strategic issue by the OHEC/BICs staff for H3. Many studies suggest that IZN favors elite group. For instance, the 5th Global Survey on IZN of Higher Education found that only about 2% of the world student population can benefit from a period of study abroad. There is an imbalance in the global flows of mobile students, with clearly identifiable sending and receiving countries that in contributes to a transfer of skilled human capital from some countries to others. There is a similar pattern in International Branch Campuses (IBCs). While the proliferation of IBC campuses in the Middle East (mostly the Persian Gulf) seen in the late 1980s to the 2000s has slowed, China has emerged as the host country with the largest number of IBCs with 32. East Asia is emerging as the center of gravity for the next wave of expansion (Garrett et al., 2016).

In contrast, **IaH (IZN at Home)** focuses on curriculum development and projects/activities within home institutions to enhance cross-cultural understanding (Kanjananiyot et al., 2018). A common view expressed in the interviews and discussion was that the Thai people in general lack basic knowledge of other cultures. IZN can play a key role in building this intercultural competency. This effort could be a primary focus of efforts to spread IZN across the whole society.

- Prioritize development of IaH (IZN at home) to expand the participation in IZN across a wider range of the population.
- Develop a range of approaches to IZN that meets people at various stages of development, e.g., IZN 1.0, 2.0, 3.0, and 4.0

13. Where should we be "good enough" in IZN and where might we be world-class?

A temptation in promoting any desired change is to aspire to be the best at everything. In practice, however, it is more plausible to discern which activities should be prioritized for world-class and those in which it is accept to be good enough. In prioritizing industries to further develop, it is critical to develop an understanding of the global marketplace and looks for areas in which the competition is less strong that fit with areas that match areas where the host country is strong, or potentially strong with further development. In areas where the competition is strong, such as advanced IT, it makes sense to be "good enough" rather than take on entrenched competitors.

One area of agreement among the interviews and discussion was that tourism was an area of potential strength that provided an opportunity to develop a world-class offering. Table 5 suggests others strengths of Thailand, as well as areas for improvement.

Table 5 Strengths and Weakness of Thailand

Strengths	Weaknesses		
 Culture of Hospitality Comparative Infrastructure Medical Services Cost of Living Geographical Positioning Political Stability 	 English Language Ability Internet and Communication Technology Resource Allocation Formal, detailed national policy for IZN and an assessment tool 		

Source: (BICS, 2013)

TO DO

 Conduct a research study to identify sectors where Thailand may have a unique advantage, such as tourism, foods, health promotion, human rights education, or in implementing SDGs

14. How might the rise of China impact IZN?

One interviewee noted that demographic trends are creating pressure to find students. This could drive a search to China to meet enrollment numbers, which in turn could impact quality standards. It could be, for example, that private universities opens doors to lower-qualified Chinese students to boost their numbers. China is pursuing an aggressive policy to be a global leaders in IZN. Three key factors of their approach include:

- "Dualism" approach to IZN of exporting students and importing western educational resources
- Heavy emphasis on developing elite schools at expense of the others
- Parent and student concerns about the quality of non-elite schools in China drives search for international alternatives

The size, ambition, and economic and political clout of China make it a formidable potential player in the Thai education market.

TO DO

Develop a "China Strategy" to deal with the potential for a massive influx of Chinese students in the context of Thailand's aging demographics, which could led to potential "quality" issues where universities could pump up their numbers with large numbers of Chinese students who may not be up to Thai quality standards.

RECOMMENDATION

The primary recommendation of this work is to consider the fourteen issues for inclusion into the next strategic plan. Each issue is accompanied by suggested "to do" actions to provide preliminary ideas on how to strategically respond to the issues.

In concluding the work, Table 6 offers a futurist perspective on seven strategic option for IZN that are judged to provide the most potential impact for IZN. The strategic options are responses to an issue or set of issues that are believed to be of high value to OHEC/BICS as it prepares for its future. The strategic options are laid out in three phases that provide a way to get started (Phase 1), build momentum (Phase 2) and fully realize (Phase 3). The phased approach gives the organization a pathway to follow over time.

Table 6 Recommended Strategic Options (1)

Strategic Option	Phase 1	Phase 2	Phase 3
Implementation	Fix "known" problems and launch customization program for universities	 Branding campaign for Quality: Going Beyond the Numbers" Identify new IZN priorities 	Develop Maturity Model to track IZN performance
Support global economy niche	 IZN helps to identify promising niches (tourism, food, health) 	 Work with businesses and economic development to implement in HE 	 Develop and publicize successful case examples
Tech Hub 4.0 (raise Thai digital capabilities to international standards)	 Launch series of pilots Online classes/ programs Certificates Tech for interactive classroom 	 Develop support staff to assist "resistors" for wider integration 	Digital skills as part of lifelong learning

Table 6 Recommended Strategic Options (2)

Strategic Option	Phase 1	Phase 2	Phase 3
Support building of international research capability	 Student exchanges are a starting point Encourage professors to build their networks Industrial Advisory Boards 	 Help universities developing a step-by-step approach Partnerships with Thai international businesses 	Regional research hub
Embed IZN through the culture	Develop change management program to develop innovation and entrepreneurial mindset/ culture	Implement the change management program in universities	Extend program to introduce IZN to K-12
Geographic focus	 Education hub for catch-up countries CLMV 	Study long-term relationship potential with China	• ASEAN +6
IZN Intelligence Service	Horizon scan study for single topic(s)	 Ongoing horizon scanning capability and service 	 Deep dives on emerging issues identified by scanning system

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WORKS CONSULTED

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APPENDICES

APPENDICES

Appendix 1. About the Houston Foresight Program

The Houston Foresight Program is the world's longest-running graduate program solely focused on foresight. It offers education and training in futures thinking and methodologies in a variety of formats that are customized for different learners with different needs—from a week-long "boot camp" to a four-course graduate certificate to a full Master's degree. It also performs research on futures-oriented projects to benefit the community and business, government, education, and non-profit organizations.

Our vision is to be widely recognized as the premier training ground for professional futurists and for those seeking to futurize their lives and their organizations.

Our mission is to serve aspiring professional futurists and the world by providing high-quality foresight training to help individuals and organizations in business, government, education, and non-profits realize their preferred futures.

For more information, visit http://houstonfutures.org/

APPENDIX 2. Glossary

Scanning hit	an article, blog post, video or other piece of information describing or signaling a potential change
Trend	A statement describing a change and its future direction: increasing, decreasing, or holding steady
Driver	A thematic cluster of trends, scan hits, or other research information that describes an influential change; these are the fundamental building blocks of scenarios
Scenario	A plausible plot line or story of how combinations of uncertainties and drivers might play out in the future; the 2 x 2 approach produces four scenarios
Implication	A potential consequence for the organization if a particular scenario plays out
Issue	A strategic question emerging from the scenarios for the organization, typically based on clusters of related implications
Option	A proposed response by the organization to a strategic issue

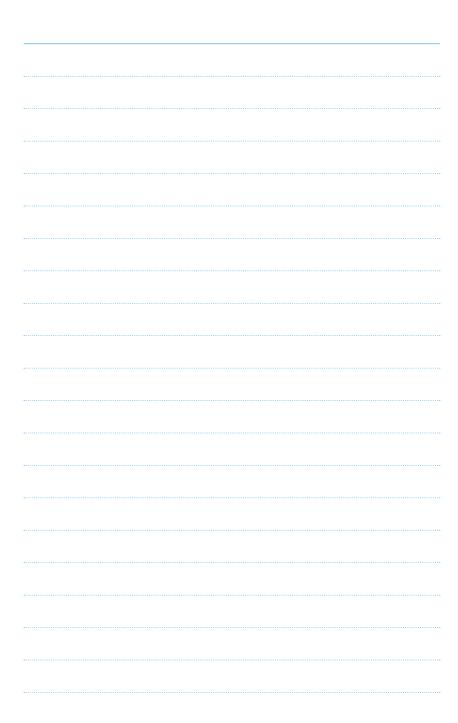
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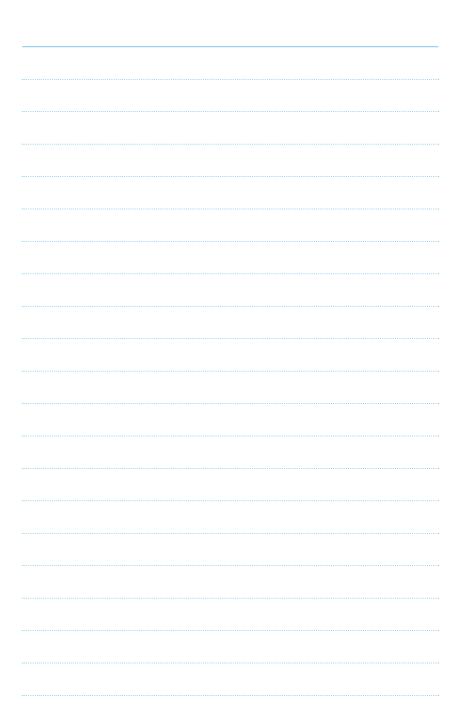


Dr. Andy Hines is Assistant Professor and Program Coordinator for the University of Houston's Graduate Program in Foresight and is also speaking, workshopping, and consulting through his firm Hinesight. His 30 years of professional futurist experience includes a decade's experience working inside first the Kellogg Company and later Dow Chemical, and consulting work with Coates & Jarratt, Inc. and Social Technologies/Innovaro. His books include *Thinking about the Future (2nd edition),* Teaching about the Future, Consumer Shift: How Changing Values Are Reshaping the Consumer Landscape, 2025: Science and Technology Reshapes US and Global Society, and his dissertation was "The Role of an Organizational Futurist in Integrating Foresight into Organizations." He is a member and former Chair of the Association of Professional Futurists.

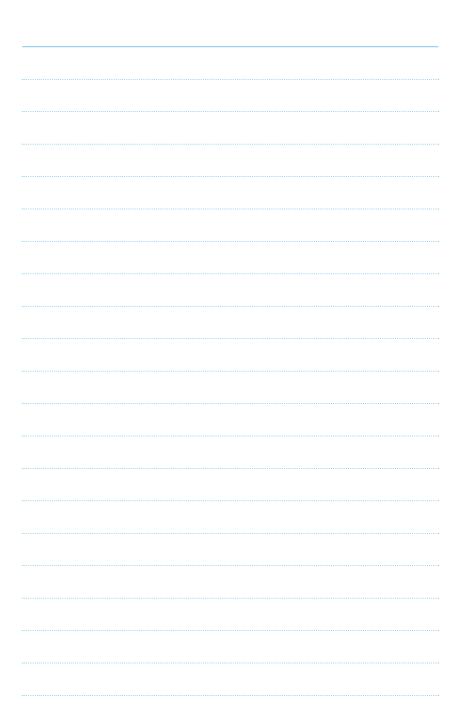
Andy Hines, PhD

Direct: +1 832 367 5575 **E-mail:** ahines@uh.edu www.andyhinesight.com











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328 Si Ayutthaya Road, Ratchathewi, Bangkok 10400, Thailand

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