UI Transformation Roadmap:
Goes Beyond the Trodden Path

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Brief History of UI

1. University of Indonesia has been through a substantial change through its relatively long history. From the substantive perspective, this institution were founded by the Decree of the Government No: 22, January 2 1849, and the education activities commenced on January 1851 with the name of Javaneese Medical Doctor School. By the end of the 19th century, the Javanese Medical Doctor School was extended to become *School tot Opleiding Van Inlandsche Artsen* (STOVIA) (1898). Stovia closed down in 1927 on its 75th year of existence. As the replacement, a Higher Institution for Medical School was launched in the year 1927 as a complement for the other 4 higher education institutions which were distributed in some cities. Those schools are Technical higher education school in Bandung in 1920, Higher education school on Law in Batavia four years later in 1924. In the year 1929 in Batavia a higher education school in Humanities and Art were erected in Batavia. Meanwhile in Bogor, an Agricultural Higher Education School was opened. Those five higher education institutions were the seeds of the faculties under the *Nood Universiteit (emergency university)* which were opened in the year 1946 in Jakarta, in the beginning of the Dutch occupancy after the Second World War.

2. *Nood* Universiteit in the year 1947 changed its name to be Universiteit van *Indonesie* which was located in Jakarta. A few nationalist professors (among them is Prof. Mr. Djokosoetono operated Universiteit van Indonesie in the capital city of the Republic of Indonesia which was in Jogjakarta at that time.

Those academic activities were separated from the main University in Jakarta which was under the Dutch Occupancy. In the year 1949, the Dutch recognized the sovereignty of the Republic of Indonesia, and the capital city is relocated to Jakarta. Universiteiet van Indonesie Jogjakarta moved back to Jakarta. At almost the same time the Gadjah Mada University was initialized in Jogjakarta in the year 1949.

3. In the year 1950, through a line of uneasiness between Nationalist Professors and Dutch Professors, finally Universiteit van Indonesie

changed its name to be Universitas Indonesia. This higher education institution has some faculties in Jakarta (Medicine, Law, Humanities and art), in Bandung (Technical school), in Bogor (Agriculture), in Surabaya (Dentistry) and Makassar (Economics).

4. Some faculties outside Jakarta in 1960s were operating on its own. University of Indonesia in Jakarta has a campus in Salemba and consists of some faculties such as Medicine, Dentistry, Math and Natural Sciences, Humanities, Law, Economics and Engineering. During the next development the some Faculties such as Psychology, Social and Political sciences, Public Health, Computer Science and Nursing were commenced. In the beginning of 1970s to 1980s University of Indonesia has 2 main campuses i.e. Salemba and Rawamangun. In 1987 University of Indonesia raised a new campus in Depok with the area covering approximately 320 Hectares of land. From that year University of Indonesia leaved the Rawamangun campus, but still use Salemba Campus for the academic activities of the Faculty of Medicine and Faculty of Dentistry. The total ares which become the land asset of the University of Indonesia is approximately 350 Hectares or 3.500.000 M2 (in Central Jakarta, Depok, Tangerang, and East Jakarta).

5. From the genealogical note mentioned above, it is important to understand that the existence of the University of Indonesia is in line with the development of the Indonesia's civilization, particularly in the academic world. In can be stated that UI is the seeds of and the embarkment of the renaissance for modern Indonesia. UI is the flag bearer of the country's name and this is the pride as well as the responsibility of the University.

Becoming An Autonomous University

6. In the year 2000, Universitas Indonesia became one of the higher education institutions which were granted the status as an Autonomous Legal Entity (BHMN) in Indonesia. This is the beginning of the implementation of the campus autonomy idea which covers the following. **First**, Autonomy in the academic development, **Second**, autonomy in the financial management. This autonomous status provides some space for the University of Indonesia to developed and play its basic role in the knowledge based society.

7. In relation this this, Universitas Indonesia as a "universe", must have a capacity to be the motor of the civilization and humanities to reach the 'advancement' by keeping the balance between the orientations of academic values, morality and art. By this, the civilization and humanities in this republic in the future can be marked with the initiation of advancement, civilization, prosperity, justice, peace, democracy, and the balance and preservation of the environment to live (green earth).

Asset of the University of Indonesia

8. University of Indonesia currently has some important things as the Asset to play its role. **First**, the long academic tradition which can be seen in the long history mentioned previously. **Second,** University of Indonesia plays its important role in providing the direction and events in many episodes of the nation's history. **Third**, University of Indonesia is supported by high qualified academic staff with a total number of 3000 staff to cater the needs of 40.000 students who has get in through the highly competitive selection, and the network of alumnae which has been distributed in many sectors which became the asset of the university that can not be separated from the advancement of UI. **Fourth,** the University of Indonesia's International reputation became apparent. **Fifth,** University of Indonesia is one of the most comprehensive higher education institution in Indonesia which is marked with the existence of almost all the scientific discipline which is organized into 12 faculties and one interdisciplinary graduate school, in addition to the community development as part of the Tridarma of Higher Education institution, mirrored by the opening of the study opportunity for under privileged students (fair and just academic operational cost), scholarship and the study opportunity through collaboration program with local government and industry. In to the future, it is expected that the community development aspect can be developed through community outreach activities form surrounding area's society (Depok, for example to open the UI's library for public in particular time, to involve Senior High School students in Depok to become non-active participant in the first semester classes, community outreach program for students, free medical clinic service, etc.

9. In addition to the above arguments, we witness that in the era of open globalization many opportunieis including the possibilit to gain local resources and overseas resources. It is true that in the middle of the highly tight competition in national, regional, and international levle there are some things which must be strengthened to ensure that the University of Indonesia can serve in a maximum way to support the development of civilization and humanities in this republic. For example the University of Indonesia's tradition which is relatively reflected the structure and culture which is not integrated. The

entrepreneurship is not inherent. In addition to that, the untilization of Information Technology in the university of Indonesia must be further enhanced to completely support all related activities and academic development.

The Era of Development

10. In the year 2002-2007, some effort to build a foundation to reach the improvement and the advancement in the above mentioned fields has been conducted. For example, the University of Indonesia has conducted some breakthrough to strengthen the structure of the institution at the university level. The managmenet of venture activities has been conducted including the initialization of the holding company as the place for the development of commercial venture. Meanwhile the use of IT in the academic and non-academic is marked with the development of administration system in addition to the improvement of the bandwidh from 4 Mbps to 85 Mpbs in some stages. In total the internal and external bandwidth of UI now reach the number of 455 Mbps.

Contributing to Civilization and Humanity

11. However, those good efforts must be significantly increased in order to ensure that the hope that University of Indonesia can contribute productively

to the development of civilization and humanities in the world can be achieved. How can University of Indonesia really contribute in the development of civilization and humanities? The answer to that question can define briefly as University of Indonesia must produce 'diamonds' in the research and teaching. The definition of 'diamonds' frequently used in the world class universities to refer to the competitiveness, with some definition. "Diamonds" in research activities can be defined by University of Indonesia as the significantly important product, high quality, significantly useful for the civilization and humanities. The highest indicator for this kind of result is the Nobel Price award. Meanwhile the general realistic indicator is some piece of works published at highly reputable International Journal with a good impact-factor. The 'diamonds' in teaching can be defined as the effort to produce "leaders" and "entrepreneurs".

12. Looking at the current condition at the University of Indonesia, to produce "diamonds' we will need between 10-15 years. On the other side to produce other things in teaching needs approximately 5-10 years. "Diamonds" can only be produced when the University of Indonesia can put itself in the frontiers of the development of science (cutting edge technologies). For this purpose, resources in terms of human resources and funding are required in good size. Therefore, University of Indonesia will not be able put all Faculties and science disciplines in the frontier. On the other hand, University of Indonesia could not also choose only one or two faculties or discipline to be considered as competitive. In the comprehensive structure of university, an effort to consider only one or two 'areas" in development of science will be contra productive, and will create jealousy.

Finding Niche in Research and Teaching

13. An intelligent way to take the University of Indonesia to the frontier of the development of science is by choosing a focus or niche of research and teaching which can take many people and group in mono-discipline, oligo-discipline, or inter-discipline areas. In order to decide the academic focus, at least two things must be considered. **First,** the relevance and large utilization to support the development of the nation's civilization in the global era. **Second,** the focus is to put the strength and opportunity to compete with the potential competitor in national, regional and international level.

Cluster based Faculties

14. This method will in terms open the space for creativity for interdisciplinary studies. The choice of

the research focus can be divided into 3 science clusters exists at the University of Indonesia: Medicine and Health Sciences, Natural Sciences and technology, and social and humanities sciences. The focus in the Medical and Health Sciences cluster, as an example, is in stem-cell, nutrition, tropical infected diseases, and herbal medicine. In the cluster of Natural Sciences and Technology, the research focus direction is on the effort to developed new energy and renewable energy, marine technology, *bio-medical engineering, Intelligence Multimedia and Information Processing, nano technology, ICT, particle and nuclear physics, as well as architecture and tropical infrastructure.* Whereas in the cluster of social sciences and humanities the research focus can be extended for sustainable development, poverty alleviation, democratization, globalization, governance, entrepreneurial/industrial society, and indigeneous issues. The definition of those research focuses must be conducted in the first year of the leadership of the year 2007-2012.

15. In order to ensure that the research focus can be extended to some frontier of sciences to reach the most forfront of the development of science, in order to produce 'diamonds' and contribute to the civilization and humanities, there are three 'machine' (engines). **Those required machines (engines) are: 1). Integration, 2), Enterprising University, 3) E-University**. Those three machines need to be 'started' and 'initiated' as soon as possible so that in the year 2012 the foundation to produce diamonds can be established. The following are the description of those three 'machines'.

16. **Integration**. The integration machine consists of five important aspects. **First**, is the integration of information system and data, and the financial management. The use of Oracle accounting system as the umbrella, need a taylor-made system which will be more user friendly, and can produce daily balance, real-time, and on-line. The financial management can be directed towards step by step centralization, starting from funding allocation system based on monthly budget, subsequently by simplifying structure and management system so that full integration can be achieved by the year 2009. **Second**, is the integration of Human Resources Management. The management of Human Resources is integrated step by step to the year 2010. In the first year, so effort to developed core lectures system, development of level of education and skills of the lecturer and the management structure of the remuneration of structural personnel. The total benefit management will be conducted in the year 2009. **Third**, is the

integration of the infrastructure and asset management. Infrastructure at the University of Indonesi is a distributed authority and the management is conducted vertically and horizontally. For example, the use of class rooms is coordinated at the university level. So that University of Indonesia's student can use the lecture place anywhere, without being prohibited by the 'ownership' of the faculty and department. This can be started in the year 2009, and should be well used by 2010. **Fourth**, is the integration of academic organization. In this case, reorganization of the academic organization structure at the University of Indonesia's environment. Faculty as an umbrella of the academic organization at the university level can be grouped into 3 only: 1). Faculty of Medicine and health sciences, 2). Faculty of Natural Sciences and Technology, 3) Faculty of Social Sciences and Humanities. Faculty is lead by a Senior Dean, supported by one or two technical secretary. Below faculty there are some schools lead by a Dean. Dean supposed to lead study programs, so that the organizational structure can be simplified into three levels only. The benefit of the simplified

environment can take courses based on major-minor system with the demand from the related expertise. In addition to that, by the year 2010, University of Indonesia's student can take 'taylor-made' study program (curriculum is freely defined based on student's interest to build a structure of particular expertise by coordinated supervision in the university level). One thing which is also important to look after is the development of 'teaching center' in which some general and obligatory courses can be recorded so that students can watch it at any time. In this center it is expected that the method to ensure UI could become a good teaching university in addition to become a forfront research university.

organization is the efficiency and the mobility of resources in order to developed research and teaching. Leturers will be easier to create grouping and cluster of interest based on relevant research focus. Surely the total number of schools in a faculty can also be added and substracted in the future. For example, the faculty of medicine and health sciences base on the current situation can have four schools, i.e. Medicine, Dentistry, Public Health, and Nursning. Under this faculty an new school of Pharmacy can unite similar areas which are now under different institutions. In addition to that the school of medicine can also be devided into three, i.e. Medicine, Medical Research, and Traditional Medic (in order to develop alternative healing and complementary to the modern-western system). General Medical Studies is directed to educate general practitioner (GP) supported by the existence of Hospitals with primary health care. Usually this kind of hospital is supported by the existence of the public bio-medical and clinical unit to produce strong basic research, technique and state of the arts methods of clinical services. This school is expected to be the frontiers of the 'diamonds' research product, including the possibility to gain Nobel Price in Medicine. The development and simplification of schools can be conducted in the year 2012. The **fifth** (final) aspect of integration is related the the academic substance. This kind of integration begins with the pioneering group of research activities, limited in number in the year 2008, so that the change of the curriculum structure in the year 2009-2010. In relation to that, University of Indonesia needs to apply "liberal-arts" for first year student. In the second year, the students in each the school

17. **Enterprising University**. The second machine to push the academic focus of the University of Indonesia to reach the frontier lines in the development of of science is enterprising university. This can be described in the following three things. **First**, University of Indonesia applied the modern management principal or enterprise-management-system. Which is, University of Indonesia take a great care on efficiency, effectiveness and the governance in conducted academic activity and non-academic activity processes. **Second**, University of Indonesia nurtures the entrepreneurial values of the academic community. Those values in general mirror by the innovative characters, creativity, hard work, and perseverance. **Third**, University of Indonesia uses resources, which is inherent or not optimally. For example, the intellectual capital owned by University of Indonesia is remarkable. This covers the product of lecturer and students work. Material which can be up-loaded by the information system, to be accessed by public particularly by private and state Universities in Indonesia which are still working hard to improve their academic quality based on national standard. The transaction in that virtual world will generate new funding in addition to the university of Indonesia's grant or the academic community to the effort to improve the quality of higher education institution in Indonesia. The

inherent resources such as land can be optimized to improve the capacity of the university financial situation.

18. **E-University**. The third machine (final) of the University of Indonesia is to build its ICT infrastructure of backbone to enable academic staff and researchers to be part of world class *mainstream research university and global research institution, as if all of this institution with intelectual strategic asset can be part of UI.* "*The world is flat*", this is hos Thomas Friedman describe how researchers, academics, professionals in Bangalore-India feel as if they are in Silicon Valley, as if all the world main research place is close to them in Bangalore (read: located very closely near them). A researcher in a laboratory can access all the best research centers in the world and conduct date exchange in excessive number and high speed, can access the data base of the current development of research, so that the researcher in India can conduct frontier and Noble class research. This is impossible to be conducted without building ICT infrastructure which is connected to the superhighway or the best backbone in the world. In the transformation, University of Indonesia has no choice except to put itself in this mainstream to become the global research university with leading edges science and technology invention and innovation. Lecturers and researchers in UI in the future must be supported by ICT superhighway backbone which is connected one to one with world wide research institutions and universities to access, large sice data and information in a high speed network. This backbone will also benefit the National Innovation System (NIS), so that the problem of food, alternative renewable energy, empowerment of small medium industries, empowerment of marine potential, etch can be overcome in a speedier and better way in orger to create prosperity and poverty alleviation.

19. Those three University of Indonesia's machine became the strategic instrument to transform UI in the future. We need to face the fact that alternative has to be chosen to create decision, even though those alternative will shake the 'stability' in UI. If we together makes these 3 machines as the focus of the development of UI in the future, UI will be able to step from good to great. From these three machines we can take real anticipating action. Integration will not only be towards consolidating strength in UI, but also to kept big potentials as a miracle. Integration can mean rationalization, efficiency, incorporation, and optimalization of UI's strength. Meanwhile enterprising will become the main support for UI capacity to realize the ambition to become one of the world class university. The implementation of e-university is tightly related to the fact that in the future university as one of the prime engine for the development of civilization and humanities, will get an enormous challenge. The new generation with a very adaptive character to the IT development will be in reality. Failing to anticipate this, university will face the threat of "the death of University".

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