

出國報告（出國類別：其他）

參加厄瓜多安巴托科技大學 2014 國際研討會

服務機關：國立屏東大學

姓名職稱：古源光 校長

派赴國家：厄瓜多安巴托 (Ambato, Ecuador)

出國期間：2014 年 10 月 11 日至 2014 年 10 月 20 日

報告日期：2014 年 10 月 30 日

摘 要

過去厄國高等教育不甚發達，教師之專業學術背景參差不一，研究設備及參與研究之師資有限，全國大學教師具博士學位者低於 20% 以下，雖政府極欲快速提升大學之競爭力，且投注相當多之經費鼓勵教師進修，並要求大學教師在 2017 年以前取得博士學位，但厄國國內大學甚少設博士學位學程，且教師出國深造之機會及意願不高，故成效仍有限。UTA 大學校長 Dr. Gala Nananjo Lopez 鑑於大學提升學術研究及競爭力的重要，積極提升學校學術研究及產官學合作，遂由該校國際事務處主任 Dr. Victor Hugo Molina 與美國亞歷桑納州立大學(Arizona State University)之 Dr. Mary Jane C. Parmentier (Center for Global Technology and Development) 共同籌辦主題為 “The Future of the University and the University of the Future: a Global Perspective” 之國際研討會，邀請國際、厄國學者專家及政府官員蒞臨發表專題演講，計有來自臺灣、土耳其、杜拜、西班牙、印度、尼泊爾、及美國等 10 位國外學者專家；厄國高等教育部、科技部副部長，官員； Tungurahua(東姑拉華省) 民選及官派省長，以及厄國國內大學校長等，與會來賓將近 300 名，盛況空前。

關鍵字：學術研究、產學合作、厄瓜多、厄瓜多安巴托科技大學

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壹、目的

- 一、主要目的為代表臺灣參加厄瓜多安巴托科技大學 2014 The International Symposium on “The Future of the University and the University of the Future: a Global Perspective” 國際研討會。
- 二、UTA 透過臺灣駐厄瓜多代表處邀請臺灣學者參加由該校籌辦的第一屆”2014 The Future of the University and the University of the Future: a Global Perspective”，本人經由教育部推薦前往代表臺灣參加此一盛會，並以”Taiwan, facing the challenges of the future on higher education”為題發表專題演講，透過參與研討會，與各國學者展開交流，交換對未來高等教育的挑戰與發展因應；
- 三、與 UTA 校長 Dr. Gala Nananjo Lopez 及學校學術行政主管等交換大學發展之相關校務推動措施及經驗分享，包括如何提升教師之師資結構、教學內容、研究發展、建立與地方政府、產業之產學合作，以及學生之學習成效等，並希望藉此能建立 UTA 與臺灣的大學之學術交流關係；
- 四、另，應邀至 UTA 之食品工程學院參訪，並給予學院內師生專題演講，講題”Navigating the Future with Knowledge-Based Agriculture”獲致很好之迴響，多位教師在演講完後提出許多建立研究方向及構想之問題、並表達想到臺灣進修之高度興趣；
- 五、透過學術交流活動宣揚臺灣高等教育之成就、以及高等教育對臺灣經濟發展之特殊貢獻，讓與會來賓印象深刻。

貳、 過程

會議及實地參訪行程（研討會議程及專題演講報告內容，詳附錄）

日期	行程、會議內容及重點報告
10月11日(星期六)~ 10月12日(星期日)	啟程，抵達厄瓜多首府基多市(Quito)，由駐厄代表處陳育仁秘書協助抵厄國接機事宜。
10月13日(星期一)	一、午間與他國與會人員自基多市出發前往安巴托市(Ambato)，傍晚抵達UTA之所在地。 二、參訪UTA附近Tungurahua省之示範生態休閒農場。
10月14日(星期二)	一、上午：應邀前往拜會安巴托市市長(UTA前任校長Ing. Luis Amoroso)、Tungurahua省民選省長(Prefect Ing. Fernando Naranjo Lalama)及官派省長(Governor Dra. Lira de la Paz Villalva)。 二、UTA安排與安巴托當地媒體之記者會，本人亦應邀接受採訪。 三、晚上：UTA舉辦第一場研討會前之音樂會，邀請土耳其裔英國倫敦大學皇家音樂學院(Royal Academy of Music, the University of London)鋼琴演奏家Ms. Ayse Deniz Gokcin演出鋼琴獨奏。
10月15日(星期三)	一、參加大會開幕儀式及研討會。 二、擔任第一場議程發表專題演講(Taiwan: Facing the Challenges of the Future of Higher Education)，獲得非常熱烈之迴響。 三、駐厄代表處鄭正勇參事當天自基多市專程全天出席聆聽，並與與會學者專家交流。
10月16日(星期四)	一、參加大會研討會，並與與會學者專家交流。 二、晚上出席UTA於安巴托市政廳舉行之音樂會。
10月17日(星期五)	一、上午：應邀至UTA食品工程學院參觀，並對院內教師及研究生發表演講，講題：Navigating the Future with Knowledge-Based Agriculture，演講後與教師及研究生有非常好之雙向互動。食品工程學院乃UTA晚近成立之學院，院內教師平均年齡較年輕，且屬於最具發展潛力之學院，該院院長及副院長亟思來臺交流合作，並計畫鼓勵無博士學位者來臺進修。 二、下午：啟程返回基多市。 三、晚上：由莊哲銘大使設宴款待，並由鄭參事陪同。本人向大使報告此行任務圓滿達成，並建議未來可繼續推動厄國學生來臺進修及教授交流訪問等各項學術活動，以增加臺厄間之交流合作及發展非政府間之關係。
10月18日(星期六)~ 10月20日(星期一)	返程

安巴托科技大學(Technical University of Ambato, Ecuador)位於厄瓜多中部山區之東姑拉華省(Tungurahua)之首都安巴托，學校成立於1969年，為厄瓜多中部地區之一所重要大學，學生將近萬人。惟因厄國過去高等教育部不甚發達，教師之專業學術背景參差不一，研究設備及參與研究之師資相當有限，全國大學教師有博士學位者低於20%以下，雖政府極欲快速提升大學之競爭力，且投注相當多之經費鼓勵教師進修，並要求大學教師在2017年以前取得博士學位，但因厄國國內大學設博士學位學程者甚少，且一般教師出國深造之機會及意願不高，故目前成效仍相當有限。

現任UTA大學校長Dr. Gala Nananjo Lopez有鑑於大學提升學術研究及競爭力的重要，積極提升學校學術研究及產官學合作，遂由該校國際事務處主任Dr. Victor Hugo Molina與美國亞歷桑納州立大學(Arizona State University)之Dr. Mary Jane C. Parmentier (Center for Global Technology and Development)共同籌辦此次之研討會，訂定主題及會議內容。正式議程從10月15日起至17日中午共有2天半，大會主題The Future of the University and the University of the Future: a Global Perspective，邀請國際及厄國學者專家及政府官員蒞臨發表專題演講，計有來自臺灣、土耳其、杜拜、西班牙、印度、尼泊爾、及美國等10位國外學者專家；厄國高等教育部、科技部副部長，官員； Tungurahua(東姑拉華省)民選及官派省長，以及厄國國內大學校長等，與會來賓將近300名，盛況空前。

大會於2天半的議程總共分成10個主題(Sessions)，分別是：

- 一、 Public policy, higher education and social outcomes
- 二、 Science cities, technological parks, innovation centers
- 三、 The right to art and culture on campus
- 四、 Envisioning the future of higher education
- 五、 New paradigms in higher education
- 六、 Evaluation and accreditation in higher education
- 七、 Strategies in higher education institutions

- 八、 University autonomy
- 九、 Research, innovation and multidisciplinary
- 十、 Conclusion and next steps

此次接受教育部推薦赴厄參加本研討會，據駐厄代表處告知應是臺灣第一次派國立大學校長參與，並與該國大學能有直接接觸及建立關係之機會，有其特別意義。個人之演講被安排在大會開幕後之第一個議程，主題是Public policy, higher education and social outcomes，共有四位演講者，包括東姑拉華省省長Fernando Nananjo Lalama (講題：Synergy between local government and university: Territorial development)，厄國Universidad de Cuenca校長Fabian Carrasco Castro (講題：Challenges of the Ecuadorian University: Facing research)，本人演講主題(Taiwan: Facing the challenges of the future of higher education)，以及來自杜拜的Tecom Investment and Education Cluster總經理Ayoub Kazim (講題：Dubai Knowledge Village and Dubai International Academic City)。

本次研討會，主辦學校UTA號稱創校以來第一次舉辦如此規模之國際研討會，學校主辦單位不但事先周密規劃、廣發邀請，並在全國及地方新聞媒體、電視台召開記者會，其用意可謂相當重大。研討會之前，UTA校長及主管先於10月13日在基多市接受全國性電視台訪問；14日上午所有與會外國演講者均被邀請與UTA校長、副校長等，分別禮貌性拜會安巴托市長Ing. Luis Amoroso(前UTA校長)、東姑拉華省民選省長(Prefect Ing. Fernando Nananjo Lalama)、及官派省長(Governor Dra. Lira de la Paz Villalva)，並於Hotel Emperado召開記者會，本人與其他外國講者均應邀出席，記者會及研討會之內容均有當地報紙連日報導。

10月11日自臺灣啟程經洛杉磯、巴拿馬兩次轉機後，於當地12日上午10時左右抵達首都基多(Quito)機場，由駐臺灣駐厄瓜多辦事處陳育仁秘書接機，隨即由UTA大學接至首都Hotel Quito停留一晚，當日下午並由該校安排參觀赤道公園。10月13日中午啟程前往安巴托市，進駐Hotel Emperado，當日傍晚參觀大學附近之農

業示範園區及休閒農場。10月14日學校安排大會開幕前之官式拜會活動中，本人趁機致贈省長、市長、政府官員等我國教育部刊印之Higher Education in Taiwan、Technological and Vocational Education in Taiwan, Elites Study in Taiwan等宣傳書刊，供其具體了解臺灣高等及技職教育對臺灣經建發展之重要貢獻。

10月17日中午研討會結束後，下午隨即啟程回返首都基多，晚上由駐厄瓜多莊明哲大使設宴款待，並由鄭正勇參事作陪。本人向大使轉達UTA校長之感謝大使協助邀請臺灣學者前來參與本次研討會之意，並向莊大使說明參與此次研討會之見聞及未來建議。晚餐後並由鄭參事陪同至基多市之古城及總統府附近巡禮一番至深夜始回旅館。隔日凌晨3時半，鄭參事親自來旅館接送至機場，20日上午6時安抵臺灣。

參、心得

厄瓜多為南美洲赤道經過之國家，人口 1500 萬左右，政情及經濟發展屬穩定之國家，貨幣以美金流通。厄國地形基本上分成海岸地區、高原地區、及亞馬遜熱帶雨林區三大區塊，重要城市大都位於高原區。農業為其最重要之產業，重要農產品以咖啡、可可豆、玫瑰花等外銷為主。農產品及食品加工業仍有待技術之提升，可鼓勵臺灣技術及產業之投入。

肆、建議

- 一、厄國之高等教育師資結構仍有待提升，目前有國家之政策鼓勵教師進修取得博士學位，建議國內大學能透過外館之協助，提供厄國大學未具博士學位者來臺進修之機會；另，建請教育部國際暨兩岸交流司透過駐厄外館的協助，能與該國簽訂高等教育師資培育之合作計畫。
- 二、UTA 為厄國 52 所大學中列屬 A 級之學校，其大學已有 45 年之歷史，為該國中部地區重要大學之一，目前正積極提升學校之學術競爭力、鼓勵教師從事產學合作、改善師資結構、並加強國際交流合作，建議邀請其校長來臺訪問，並與國內大學簽訂學術交流合作協議，以增進該國學生及教師來臺進修之管道。

伍、 附錄

甲、 活動照片



10月13日拜會安巴托市長於市政廳前合影



於市政府會議廳合影



與民選省長(左三)、UTA 校長(右三)合影



與官派省長(左五)合影



在大會發表專題演講



致贈紀念品予安巴托市市長



10月14日音樂晚會前之外賓介紹



10月15日開幕儀式



10月15日開幕，鄭正勇參事亦蒞臨與會



聆聽其他講者之演講



與鄭參事及其他與會者合影



與美國學者 Dr. Ray Ryan 合影



10月13日參加記者會



10月15日演講後接受墊子媒體採訪



10月16日晚之厄國文化表演



研討會現場



研討會現場



10月17日閉幕儀式中全體國外演講者合影



UTA 校長致贈紀念品

乙、 研討會議程

<p>Primer Encuentro Internacional EL FUTURO DE LA UNIVERSIDAD Y LA UNIVERSIDAD DEL FUTURO: UNA VISIÓN DESDE LOS 5 CONTINENTES October 15-17, 2014</p>	 UNIVERSIDAD TÉCNICA DE AMBATO	<p>First International Symposium THE FUTURE OF THE UNIVERSITY AND THE UNIVERSITY OF THE FUTURE: A GLOBAL PERSPECTIVE October 15-17, 2014</p>
<p>Primer Encuentro Internacional EL FUTURO DE LA UNIVERSIDAD Y LA UNIVERSIDAD DEL FUTURO: UNA VISIÓN DESDE LOS 5 CONTINENTES October 15-17, 2014</p>	<p>First International Symposium THE FUTURE OF THE UNIVERSITY AND THE UNIVERSITY OF THE FUTURE: A GLOBAL PERSPECTIVE October 15-17, 2014</p>	
PROGRAMA DEL ENCUENTRO SYMPOSIUM PROGRAM		
MARTES, 14 DE OCTUBRE, 2014		TUESDAY, OCTOBER 14, 2014
18:00 PRESENTACIÓN DE CONFERENCIAS A ESTUDIANTES SPEAKERS PRESENTATION TO STUDENTS		
<p>Imaginando El Futuro de la Universidad y la Universidad del Futuro: una Visión desde los 5 Continentes</p>	<p>GALO NARANJO RECTOR UNIVERSIDAD TÉCNICA DE AMBATO 18:30</p>	<p>Envisioning The Future of the University and the University of the Future: a Global Perspective</p>
18:30 EVENTO CULTURAL CULTURAL EVENT		
<p>Concierto de Piano Centro de Cultura y Deportes UTA Campus Huachi</p>	<p>AYSE DENİZ GOKCIN CONCIERTO DE PIANO CONCIERTO DE PIANO ROYAL ACADEMY OF MUSIC UNIVERSITY OF LONDON</p>	<p>Piano Concert Centro de Cultura y Deportes UTA Campus Huachi</p>
<p>UTA CAMPUS HUACHI Centro de Cultura y Deportes</p>	<p>Az. Chasquis entre Río Guayllabamba y Río Payamino Ambato - Ecuador</p>	<p>eventos@uta.edu.ec www.uta.edu.ec</p>

<p>Primer Encuentro Internacional EL FUTURO DE LA UNIVERSIDAD Y LA UNIVERSIDAD DEL FUTURO: UNA VISIÓN DESDE LOS 5 CONTINENTES October 15-17, 2014</p>	 UNIVERSIDAD TÉCNICA DE AMBATO	<p>First International Symposium THE FUTURE OF THE UNIVERSITY AND THE UNIVERSITY OF THE FUTURE: A GLOBAL PERSPECTIVE October 15-17, 2014</p>
MIÉRCOLES, 15 DE OCTUBRE, 2014		WEDNESDAY, OCTOBER 15, 2014
09:00 PALABRAS INAUGURALES SYMPOSIUM OPENING		
ACTO INAUGURAL SYMPOSIUM OPENING		
10:30 RECESO BREAK SESIÓN 1 11:00 SESSION 1		
POLÍTICA PÚBLICA EN EDUCACIÓN SUPERIOR Y SU IMPACTO SOCIAL PUBLIC POLICY ON HIGHER EDUCATION AND ITS SOCIAL OUTCOMES		
<p>La Universidad de Cuenca frente a los retos Futuro de la Educación Superior</p>	<p>FABIÁN CARRASCO RECTOR UNIVERSIDAD DE CUENCA (UCUENCA)</p>	<p>The Universidad de Cuenca facing the challenges of the Future of Higher Education</p>
<p>La Educación Superior como Herramienta para Desarrollar Una Sociedad Basada en el Conocimiento: Enfoques Internacionales</p>	<p>RAY RYAN PROFESOR ASOCIADO ASSOCIATE PROFESSOR GLOBAL TECHNOLOGY AND DEVELOPMENT PROGRAM (ASU)</p>	<p>Using Higher Education to Develop A Knowledge Based Society: International Approaches</p>
<p>La Universidad Nacional Ping Tung de Taiwán frente a los retos Futuro de la Educación Superior</p>	<p>YUAN-KUANG GUU RECTOR NATIONAL PING TUNG UNIVERSITY</p>	<p>The National Ping Tung University - Taiwan, facing the challenges of the Future of Higher Education</p>
<p>Hacia un Nuevo Paradigma Universitario en Educación Superior</p>	<p>HASAN SIMSEK DECANO FACULTAD DE EDUCACIÓN DEAN FACULTY OF EDUCATION ISTANBUL KULTUR UNIVERSITY (IKU)</p>	<p>Towards a New Paradigm in Higher Education</p>
13:00 ALMUERZO LUNCH		
<p>UTA CAMPUS HUACHI Centro de Cultura y Deportes</p>	<p>Az. Chasquis entre Río Guayllabamba y Río Payamino Ambato - Ecuador</p>	<p>eventos@uta.edu.ec www.uta.edu.ec</p>

UTA

UNIVERSIDAD
TÉCNICA DE AMBATO

SESIÓN 2 16:00 SESSION 2

CIENCIA, PARQUES TECNOLÓGICOS, CENTROS DE INNOVACIÓN | SCIENCE CITIES, TECHNOLOGICAL PARKS, INNOVATION CENTRES

<p>El Parque Científico de la Universidad Carlos III de Madrid</p> <p>Estrategias de Innovación y Crecimiento para la Universidad del Futuro</p> <p>La Villa del Conocimiento de Dubai y La Ciudad Académica Internacional de Dubai</p> <p>YACHAY: La Primera Ciudad del Conocimiento del Ecuador</p>	<p>PALOMA DOMINGO DIRECTORA PARQUE CIENTÍFICO DIRECTOR SCIENTIFIC PARK UNIVERSIDAD CARLOS III (UC3)</p> <p>PRASAD BORADKAR DIRECTOR INNOVATIONPARK CO-DIRECTOR BIOMIMICRY CENTER ARIZONA STATE UNIVERSITY (ASU)</p> <p>AYOUB KAZIM DIRECTOR ADMINISTRATIVO MANAGING DIRECTOR DUBAI KNOWLEDGE VILLAGE (DKV) DUBAI INTERNATIONAL ACADEMIC CITY (DIAC)</p> <p>HÉCTOR RODRÍGUEZ GERENTE GENERAL CEO YACHAY EP</p>	<p>The Scientific Park of the Universidad Carlos III de Madrid</p> <p>Innovation and Growth Strategies for the University of the Future</p> <p>Dubai Knowledge Village - Dubai International Academic City</p> <p>YACHAY: The First Ecuadorian City of Knowledge</p>
18:00		
RECESO BREAK		
EVENTO CULTURAL 18:30 CULTURAL EVENT		
EVENTO CULTURAL CULTURAL EVENT		
<p>Concierto de Piano Centro de Cultura y Deportes UTA Campus Huachi</p>	<p>AYSE DENİZ GOKCIN ROYAL ACADEMY OF MUSIC UNIVERSITY OF LONDON</p>	<p>Piano Concert Centro de Cultura y Deportes UTA Campus Huachi</p>

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SESIÓN 3 08:30 SESSION 3

VISION DE FUTURO DE LA EDUCACIÓN SUPERIOR | ENVISIONING OF FUTURE OF HIGHER EDUCATION

<p>La Escuela Politécnica Nacional frente a los retos futuro de la Educación Superior</p> <p>Fronteras de Diseño Institucional: Educación Superior</p> <p>El Arte en el Campus: La Obra de Vega en Instituciones de Educación Superior</p> <p>Ciudades y Clusters de Conocimiento en Dubai: Middlesex University en Dubai</p>	<p>JAIME CALDERÓN RECTOR ESCUELA POLITÉCNICA NACIONAL (EPN)</p> <p>DERRICK ANDERSON CONSEJERO DE INNOVACIÓN INNOVATION ADVISOR ARIZONA STATE UNIVERSITY (ASU)</p> <p>EDUARDO VEGA DECANO FACULTAD DE EDUCACIÓN DEAN FACULTY OF EDUCATION VEGA GALERIA TALLER</p> <p>CODY PARIS COORDINADOR COORDINATOR PROGRAMA DE CIENCIAS SOCIALES SOCIAL SCIENCES PROGRAMME MIDDLESEX UNIVERSITY DUBAI (MDD)</p>	<p>The Escuela Politécnica Nacional facing the challenges of the Future of Higher Education</p> <p>Institutional Design Frontiers: Higher Education</p> <p>Art on Campus: The Artworks of Vega on Higher Education Institutions</p> <p>Knowledge Cities/Clusters in Dubai: Middlesex University en Dubai</p>
11:00		
RECESO BREAK		
SESIÓN 4 11:30 SESSION 4		
EVALUACIÓN Y ACREDITACIÓN DE EDUCACIÓN SUPERIOR EVALUATION AND ACCREDITATION IN HIGHER EDUCATION		
<p>Modelo de Evaluación y Acreditación de las Instituciones de Educación Superior en el Contexto Ecuatoriano</p> <p>Procesos Simultáneos de Acreditación Nacional Institucional y Acreditación Internacional de Camerías</p>	<p>FRANCISCO CADENA PRESIDENTE PRESIDENT CONSEJO DE EVALUACIÓN, ACREDITACIÓN Y ASEGURAMIENTO DE LA CALIDAD DE LA EDUCACIÓN SUPERIOR - ECUADOR</p> <p>CECILIA PAREDES VICEIRECTORA ACADÉMICA ACADEMIC VICEPRESIDENT ESCUELA SUPERIOR POLITÉCNICA DEL LITORAL (ESPOL)</p>	<p>Evaluation and Accreditation Model for Higher Education Institutions in the Ecuadorian Context</p> <p>Simultaneous Processes of Institutional National Accreditation and International Schools Accreditation</p>
13:00		
ALMUERZO LUNCH		

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SESIÓN 5 16:00 SESSION 5

NUEVOS PARADIGMAS EN EDUCACIÓN SUPERIOR I - NEW PARADIGMS IN HIGHER EDUCATION

Investigación enfocada en
 la Provisión Global Sostenible de Alimentos

JILL GREADY
 (VIDEOCONFERENCE)
 PROFESORA | PROFESSOR
 AUSTRALIAN NATIONAL UNIVERSITY

Research focused
 on Global Sustainable Food Provision

Avanzando en la Educación en la Ciencia

LELAND HARTWELL
 (VIDEOCONFERENCE)
 PREMIO NOBEL 2001 | NOBEL LAUREATE 2001
 BIOSIGN INSTITUTE (ASU)

Advancing Science Education

La Universidad de las Fuerzas Armadas frente a
 los retos futuro de la Educación Superior

ROQUE MOREIRA
 RECTOR
 UNIVERSIDAD DE LAS FUERZAS ARMADAS (ESPE)

The Universidad de las Fuerzas Armadas facing
 the challenges of the future of Higher Education

La Educación Superior de Norte América en contexto:
 La Universidad Estatal de Arizona cambia el juego

GARY GROSSMAN
 DIRECTOR DEL PROGRAMA | PROGRAM DIRECTOR
 GLOBAL TECHNOLOGY AND DEVELOPMENT PROGRAM (ASU)

American Higher Education in Context:
 ASU Changes the Game

18:00

RECESO | BREAK

EVENTO CULTURAL 18:30 CULTURAL EVENT

EVENTO CULTURAL | CULTURAL EVENT

GRUPO TUNGURAHUA
 GRUPO DE DANZA FOLKLÓRICA ECUATORIANA | ECUADORIAN FOLK DANCE GROUP

SESIÓN 6 08:30 SESSION 6

AUTONOMÍA UNIVERSITARIA I - UNIVERSITY AUTHONOMY

La Autonomía Universitaria en
 América Latina y el Caribe

PATRICIO YÉPEZ
 ASESOR PARA LA REGIÓN ANDINA | ADVISOR ANDEAN REGION
 UNIÓN DE UNIVERSIDADES DE AMÉRICA LATINA Y EL CARIBE (UDUAL)

University Autonomy in
 Latin America and the Caribbean

La Universidad
 entre la Acreditación y la Autonomía

ARTURO VILLAVICENCIO
 PROFESOR | PROFESSOR
 UNIVERSIDAD ANDINA SIMÓN BOLÍVAR (UASB) ECUADOR

University
 in between Accreditation and Autonomy

La Autonomía Universitaria
 y el Co-Gobierno Universitario

FERNANDO SEMPÉRTEGUI
 RECTOR
 UNIVERSIDAD CENTRAL DEL ECUADOR (UCE)

University Autonomy and
 University Co-Government

10:30

RECESO | BREAK

SESIÓN 7 11:00 SESSION 7

INVESTIGACIÓN, INNOVACIÓN E INTERDISCIPLINARIEDAD I - RESEARCH, INNOVATION AND MULTIDISCIPLINARITY

Los Cursos Masivo Abiertos en Línea y el Futuro de
 la Educación Superior: la Perspectiva de COURSERA

DAPHNE KOLLER
 (VIDEOCONFERENCE)
 PRESIDENTE Y CO-FUNDADORA | PRESIDENT AND CO-FOUNDER
 COURSERA

MOOCs and the Future of Higher Education:
 The COURSERA Perspective

Programas de Posgrado Multidisciplinarios:
 Integrando Ciencia, Tecnología y Ciencias Sociales

MARY JANE PARMENTIER
 SUB-DIRECTORA | ASSISTANT DIRECTOR
 GLOBAL TECHNOLOGY AND DEVELOPMENT PROGRAM (ASU)

Multidisciplinary Graduate Programs:
 Integrating Sciences, Technology and Social Sciences

Sistemas de Producción Globales y Comparativos

NETRA CHHETRI
 CIENTÍFICO SENIOR EN SUSTENTABILIDAD | SENIOR SUSTAINABILITY SCIENTIST
 THE GLOBAL INSTITUTE OF SUSTAINABILITY (ASU)

Global and Comparative Production Systems

El Sistema de Innovación en el Ecuador

RINA PAZOS
 SUB-SECRETARÍA NACIONAL | NATIONAL DEPUTY SECRETARY
 SECRETARÍA NACIONAL DE CIENCIA, TECNOLOGÍA E INNOVACIÓN
 (SENESCYT) - ECUADOR

National Innovation System in Ecuador

Primer Encuentro Internacional
EL FUTURO DE LA UNIVERSIDAD
Y LA UNIVERSIDAD DEL FUTURO:
UNA VISIÓN DESDE LOS 5 CONTINENTES

October 15-17, 2014

VIERNES, 17 DE OCTUBRE, 2014



UNIVERSIDAD
TÉCNICA DE AMBATO
13:00

First International Symposium
THE FUTURE OF THE UNIVERSITY
AND THE UNIVERSITY OF THE FUTURE:
A GLOBAL PERSPECTIVE

October 15-17, 2014

FRIDAY, OCTOBER 17, 2014

CONCLUSION / PROXIMOS PASOS | CONCLUSION / NEXT STEPS

El Futuro de la Universidad
y la Universidad del Futuro:
una Visión desde los 5 Continentes

GALO NARANJO
RECTOR
UNIVERSIDAD TÉCNICA DE AMBATO

The Future of the University
and the University of the Future:
a Global Perspective

CIERRE DE EVENTO | EVENT CLOSURE

INFORMACIÓN TURÍSTICA / TOURIST INFO



ALL YOU NEED IS ECUADOR: <http://ecuador.travel/en>

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Symposium Coordinator

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丙、 專題演講報告內容

The Future of the University:
Taiwan, facing the challenges of the future of
higher education

Prof. Mike Y. K. Guu, Ph.D.
President
National Pingtung University

October 15, 2014



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Justification

- **Challenges of Higher Education:**
 - The increasing complexity of global issues
 - The search and engagement of world-class researchers with high standards of scientific production
 - Government regulation and control through evaluation and accreditation processes
 - External funding search
 - Responsible autonomy
 - Organizational changes in all areas across universities
- **And how we face and solve them?**

When East Meets West




Education is the most powerful weapon to change the world.

–Nelson Mandela, RSA



Scopes



- **Some Facts About Taiwan**
- **Development Stages of Taiwan's Economy**
- **Taiwan's Education System**
- **Role of Education in Taiwan's Economy Development – Economic Miracles and Taiwan's No. 1's**
- **What Challenges on the Future of Taiwan's Higher Education?**
- **How Taiwan Faces the Challenges?**
- **Implementations of National Policies on Upgrading Higher Education**
- **Questions and Comments!**

Some Facts About Taiwan



- **Area: 36,000 km²**
- **Total Population: 23 M**
- **Infrastructures: Well established**
- **Natural Disasters: Typhoon, earthquake, flooding, etc.**
- **Natural Resources: limited**
- **Human Resources: plenty**
- **Percentage of high school graduates for higher education: > 90%**

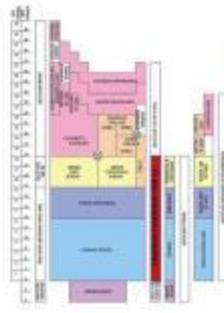
● : Science Parks

Development Stages of Taiwan's Economy

- From Agriculture- to industry-oriented industry (1950~1980), then to High Tech (1980~now)
- From farm to table (Food security concerns: barely to meet food supply and demand, and processing of foods to preserve fresh foods or enhance palatability)
- From farm to tablet:
 - High tech involving in further processing of agricultural produces to tablets and pills for health and functional foods
 - Change of industrial style from agriculture to tablet, computer, semi-conductor, ICT, etc.



Taiwan's Education System



Numbers of Educational Institutions
 Universities and Colleges: 146 (50+96)
 5 years Junior Colleges (Nursing): 14 (2+12)
 Senior High Schools: 347
 Vocational High Schools: 155

Starting from August 1st 2014, compulsory education is extended from 9 to 12 years.

Role of Education in Taiwan's Economic Development

Engineering in High Tech, ICT, and Sports Goods Industries




Role of Education in Taiwan's Economic Development

Agro-biotech in Ornamental Floriculture



Butterfly orchid-*Phalaenopsis*

Role of Education in Taiwan's Economic Development

Agro-biotech in Ornamental (fluorescent) and Seafood Fishes Industries



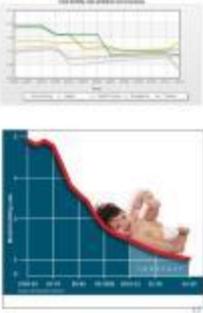
Economic Miracles and Taiwan's No. 1's



- Outstanding economic development in the period of 1980-2000 had made Taiwan one of the 4 Asian Tigers. The most important reason is that Taiwan's education system cultivates all the skilled talents as needed by the industry, and even creates many young entrepreneurs.
- Since then, Taiwan becomes well-known in the world by its electronics, semi-conductors, PC board, silicone waffles, notebook, LCD, digital camera, bicycle, sports shoes, golf clubs, ATV (all terrain vehicle or dune buggy) and even agro-biotech industries. Many of them are ranked No. 1 in terms of the market shares, though most of them are OEM/ODM products.
- But, the world is changing and moving up, very swiftly! Taiwan is going slowly compared to those newly emerging countries, like the golden BRICS!

What Challenges on Taiwan's Higher Education

- Very low fertility rate and low birth rate of the past 2 decades and for the future
- Number of universities increased dramatically in the past 2 decades (60→165), mostly upgraded from technical junior colleges and are facing problems of student recruitments
- World university ranking as indicators of national competitiveness – Logics of Taiwan policy makers
- Industry needs more university graduates with practical experiences and immediate employability
- And, many others!




To Face Global Changes and Challenges on the Future of Higher Education

Some measures that the Taiwan's Ministry of Education has enacted since 2000 and later are presented as follow

If not the best, but at least it works!

Implementations of National Policies on Upgrading Higher Education

1. World Top Universities Project:

MOE's Justification: The strength of universities is a useful gauge of national competitiveness.

- Phase I (2006-2010): Transformation and growth
- Phase II (2011-2016): Aim for the Top University
- 10 top Taiwan universities are fortified with extra funds from the Ministry of Education for outstanding research projects
- A total amount of USD 3.5 billions is projected in 10 years



Implementations of National Policies on Upgrading Higher Education

2. Teaching Excellence of Universities Projects:

Justification: Helping universities further boost infrastructures and bolster curricula to ensure higher education remaining a reliable source of high-caliber talents

A total amount of USD 1.75 billions is projected in 10 years starting from 2008



Implementations of National Policies on Upgrading Higher Education

3. e-Learning through Internet and Wifi

- Teaching with aids of digital media
- Free access of campus wifi
- Double backbones of optical fiber hi-speed internet to WWW
- Access to Massive Open Online Courses
- Integrated digital classroom
- E-portfolio for each student
- One-student-one-laptop



Implementations of National Policies on Upgrading Higher Education

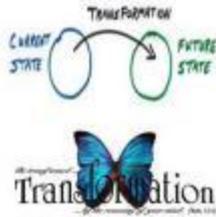
4. Links between Universities and Industries:

- 6 Regional Centers for University-Industry Collaborations sponsored and directed by the Ministry of Education
- Innovation incubations Centers at universities
- Industrial training programs for university professors
- Internship training programs included in curricula for students of universities of applied sciences
- Co-teaching with experienced technicians, engineers, and managers from industries
- Tailored-made master's programs for employees from industries



The Future of Taiwan's Higher Education -- Transformation

- Autonomy of public university in the near future
- Merges of public universities nearby or in the same district, and shut-down of fading-out private universities (165-9100 in 5 years?)
- Globalization of university and international mobility of students
- Closer relationships between university and industry
- Entrepreneurship for university students through innovation incubation centers
- Future focuses on high employability and competitiveness of university graduates for
 - High-tech and ICT industries
 - Green engineering and technologies industries
 - Agricultural biotech industries
 - Service industries
 - And so on...



National Pingtung University of Science and Technology (1924)

POR: Product- or Process-Oriented Research

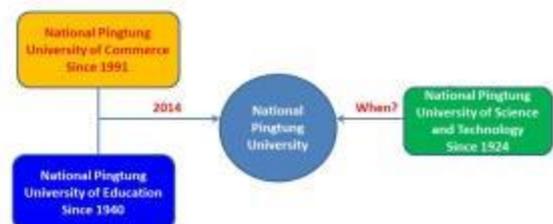


National Pingtung University

- A newly merged university on August 1, 2014
- Consisted of National Pingtung University of Education (since 1940) and National Pingtung University of Commerce
- Faculties: Education, Science, Informatics, Business and Management, Humanities and Social Sciences



Case and Strategy of University Merge in Pingtung, Taiwan



Questions and Comments

Education and Human Resources:

My Belief:

Human Resources are key to success of Economic Development;
Higher Education is key to effective cultivation of Human Resources



Thank You for
Attentions!

18

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