學術國際化經驗分享

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本院很榮幸邀請到林盈達教授分享其個人對學術國際化的經驗及看法，而由於篇幅所限，以下內文只擷取講座部分內容：

學術國際化的必要性

傳統與在地化的學術傳播方式，無法在知識經濟的時代下永保國家的競爭力，唯有透過學術的產業化、國際化與全球化，才能有效保持個人或國家創新能力與競爭力。

人才具備特質

現今高等教育邁向全球化的發展，使各國學者必須和世界各地的人才競爭與合作。因此林教授提出學術國際化的人才應具備的特質，分別為國際視野、國際態度、國際競爭力、國際活動能力以及適應力。

國際視野：具備各國相關知識，能換位思考，以協助國際溝通、協調與合作，並能思考問題與肯定自我價值。

國際態度：能體認文化差異，並能公平競爭、友愛合作與自尊自愛、自信自強的正確態度。

國際競爭力：擁有語文能力與領域專業知識，能順應國際發展趨勢與領域專業需求，表達與發揮專業能力，擁有被國際領域認可的實力與說服力。

國際活動能力：要有好奇心，熱愛體驗各種不同的生活與參加各種不同競賽或活動，並清楚掌握可運用資源與建立良好人脈，以協助達成個人目標。

適應力：要跟不同文化、背景的人快速交流，必須要有很強的整合、溝通、談判與適應社會環境變化的能力，在不斷學習和培養良好的人際關係中得到提升。

學者國際化三大願景：研究、服務、教學
一、「研究」具國際競爭力
（一）研究題材：夠新夠大夠重要

研究成果的影響力大小在選定題目時就決定泰半，往往「新題目舊方法」比「舊題目新方法」更有影響力，除非新方法得到另一個數量級的改進。大部分的研究生對題目好壞較沒感覺，所以有賴指導教授的建議或討論，也要避免加了很多流行關鍵字 (buzzwords) 造成題目變小，或做與他人差距不大的研究。最好能在聽 keynote 時觸發新的想法，或在會議與人腦力激盪，當然也可以在地毯式的調查甚至撰寫 survey 論文後往較未被妥善解決的問題邁進。最後一種方式，先實作再從研究過程中尋找「真實問題」，而不論哪一種

來源，都可以一次思考一個藍圖 (roadmap) 並耕耘數年。

（二）合作對象：向上向下向左右

合作的好處除了資源的整合共享，更能因為互相鞭策、激盪與檢視讓速度與品質更好，而透過會議交流或學術服務工作認識接近領域的人，就可以安排日後參加會議時順道去演講訪問，例如：申請 IEEE Distinguished Lecturer 進行海外演講行程，演講的深入討論就能觸發共同有興趣的主題。對於合作模式，牽涉到雙方的 profile 高低，切記不要「假合作或半合作真掛名」，長期就會累積不少合作愉快有效率的夥伴關係。

（三）研究發表：最佳化質量與影響力

台灣過於重視 A 級期刊，導致學者花許多時間產出一篇論文到 A 級期刊的水準，但花太少時間在思考有影響力的題目，因此無法提升其價值。

根據統計，研究調查 (Survey) 論文的平均被引用數是研究論文的三倍，但台灣很少做研究調查論文，原因是不知道可以這樣做及英文撰寫不夠快，而這對學生其實是個很好的訓練，林教授也提醒研究調查的數量也要適量。最後，創造影響力不是只侷限在論文，專利、標準、新創等「產業影響力」也應得到認可，但仍是要看被市場接受與否、新創營運績效等影響力指標。

二、「服務」具國際能見度
（一）期刊編輯：細水長流的審稿

若在某一期刊已發表多篇論文，且整體研究績效（如被引用數）與該期刊影響係數匹配，就可以在年底向主編 (Editor-in-Chief) 自我推薦擔任編輯 (Associate Editor)。在擔任編輯多年後，也可競選主編，通常是由學會主管或出版商籌組遴選委員會，經討論後選出。擔任編輯等職務是專業的學術服務，必須講究管理的效率、品質與倫理，應「慎用而非濫用」能決定論文生殺大權的權力，不能容許造假、拉幫結派、要求作者引用自己論文等行為。也要熟悉與善用線上審查系統，每週 1-3 次總時數 2-4 小時，有效率專業的挑出審查者、提醒審查者控制時程、閱讀審查意見、做出有鑑別力的審查建議或決定。

（二）會議議程委員：短期大量的審稿

與期刊編輯類似的概念，如果已多年在一個會議發表論文，便能找議程主席 (Program Chair) 自我推薦擔任議程委員 (Program Committee Member)。而議程委員需在 1-2 個月內處理大量投稿的審查。議程主席需熟悉 EDAS 等審稿系統的批次作業方式，才能在短時間內分配數百篇投稿

論文給議程委員，並於最後根據審查結果批次決定錄取名單。

（三）競選獎項與職位：由小而大

期刊（含雜誌）與會議是一個學會 (Society) 的主要發表平台，為了動態強化學會的會議、期刊、標準參與、獎項頒發等運作，學會再透過許多不同領域的技術委員會 (Technical Committee, TC)，分別就其技術主題支持各會議與期刊的運作。

學會的重大決策須提報到理事會 (Board of Governors, BoG) 表決通過。所有職位與獎項的競選都有其資格標準，在競選或自薦前應先評估自身研究績效、服務經驗等是否與「現任或前任」相當，才能提高成功機率。

三、「教學」國際化及全球化
（一）教學英語化：本地生＞外籍生

英語教學的目的是「引進外籍生來刺激教授與本地生國際化」，然而目前各大學的外籍生

與英語授課比率分別停滯在 10% 與 30% 左右，仍有三分之二的教授與本地生未實際進入英語授課，這只是國際化待突破的「初始門檻」，在有不同國籍外籍生的實驗室裡習慣以英語長時間討論，也是培養師生更國際化的「進階門檻」。

（二）教學國際化：出國與跨國

上述有提及，透過演講安排最容易建立合作夥伴關係，主動或被動安排一年 5-10 場演講至 2-4 個出國行程中，不是難達到的事情。訪問研究時也能安排正式授課，或是在 Coursera 等線上授課平台開課，可惜教育部與各校未能與 Coursera 談取授權，目前這種模式在並不普遍。

（三）教材全球化：出版教科書

從用嘴教一班到用書教全世界，透過國際出版社出一本教科書就可以全球化。儘管出書的準備工程龐大，但可以從自備全新投影片教材開始，累積兩到三年後，再將其轉換寫成書的章節，待審查通過後就可以簽約，接著照進度繳各章，然後再經過審查後的修改，最後校稿至定稿。

學術國際化之願景、目標與方法　林盈達 8-2020		
願景	**目標**	**方法**
研究具國際影響力	研究題材：夠新夠大夠重要 - 如何挑選具影響力的研究題目？	主題演講 (keynote)：看見趨勢 交流討論：腦力激盪 研究調查：地毯式空間清查 系統實作：自己找真實問題 四個避免：看論文追隨題目、讓學生自己決定、挑太細的題目、跟別人區別不大
	合作對象：向上向下向左右 - 如何尋找、建立、多元化與管理夥伴關係？	尋找與建立夥伴關係：會議社交、服務共事、演講安排 管理夥伴關係：上下左右、誰出題與學生、互訪或遠距 多元化夥伴關係：1-2、2-1、2-2、1-1-2 的 32 種組合
	研究發表：最佳化質量與影響力 - 以何種投稿策略最佳化研究發表的質量與影響力？	會議 vs. 期刊：兼顧或偏重 A 級 vs. 被引用數：傳統標準或國際標準 論文製程前段與後段：影響力 vs. 品質 調查論文 (survey)：被引用數的放大 專利、標準與新創：產業影響力的追求
服務具國際能見度	期刊編輯：細水長流的審稿 - 如何成為國際期刊之編輯、特刊客座編輯與主編？	期刊編輯：從經常作者的期刊開始 特刊客座編輯：提計畫書在投入的子領域找同好與追隨者 主編：從學術傑出到管理編輯委員會與審稿流程 名聲來自品質與正直：慎用而非濫用權力 善用線上審稿系統：每週 1-3 次數小時
	會議議程委員：短期大量的審稿 - 如何成為會議議程委員、議程主席、大會主席與指導委員？	議程委員會：從經常作者的會議開始 議程主席與大會主席：透過技術委員會、指導委員會或理事會 指導委員會：會議的內閣前武者 審稿品質與速度：帶學生一個月審十篇 短期大量：熟悉線上批次作業
	競選獎項與職位：由小而大 - 如何競選各種行政職位與獎項？	職位與獎項獲得：理解評比標準 技術委員會：連接會議、特刊、標準與獎項 理事會：學會的決策委員會
教學具國際化與全球化	教學英語化：本地生＞外籍生 - 為了外籍生才英語教學？	本地生國際化：師生共同成長 吸引外籍生：擴充研究能量
	教學國際化：出國與跨國 - 如何教到國外去？	國外演講：尋找合作可能 國外授課：結合訪問研究 線上開課：打破國界的全球化
	教材全球化：出版教科書 - 從用嘴教一班到用書教全世界？	自編教材投影片：出書的預備動作 國際出版商出書：從計畫書到校稿

Sharing Academic Internationalization

Our college is honored to have Professor Ying-Dar Lin share his personal experiences and views on academic internationalization. Due to space limitations, the following notes are extracts from the lecture:

The necessity of academic internationalization

Traditional local education and knowledge dissemination approaches cannot always maintain a country's competitiveness in the era of knowledge economy. Through academic industrialization, internationalization and globalization, we could effectively maintain the level of knowledge, improve the quality of human resources, and maintain innovation capabilities as well as economic competitiveness in our country.

The international characteristics of talents

With the globalization of higher education, scholars from various countries must compete with talents from all over the world. At the same time, they must develop the strength and know-how adapted to local conditions so that they can co-work with people from different countries easily. Therefore, Professor Lin characterized international academic talents as international perspective, attitude, competitiveness, capability, and adaptability, as follows. Scholars need to equip themselves with these characteristics in their mentality.
International perspective: General knowledge about countries, better international communication with empathy, coordination and cooperation, as well as self-worth affirmation.
International attitude: A correct attitude, such as recognition of cultural differences, fair competition, friendly cooperation, and self-esteem, as well as self-confidence and self-improvement.
International competitiveness: Possess language ability and domain expertise, adapt to the current global development trends and domain professional needs, express and exert professional ability, and possess the strength and persuasive power recognized internationally.
International capability: Have curiosity, enjoy experiencing different kinds of life and participating in different competitions or activities, and have a clear grasp of available resources and establish good

connections to help achieve personal goals.
Adaptability: To communicate quickly with people from different cultures and backgrounds, you must have a strong ability to integrate, communicate, negotiate, and adapt to changes in social environment, which can be improved through continuous learning and building effective interpersonal relationships.
Three visions of scholars' internationalization: research, service, and teaching
With international mentality, the three basic scholarly jobs could have better visions, including research with international impact, service with international visibility, and teaching with global coverage.

1. "Research" with international impact
1-1. Research subject: new, big, and important enough
The impact of research results is much determined at the time you choose the topic. In general, "new topic and old approach" are often more influential than "old topic and new approach" unless the new approach improves by another order of magnitude. Having no idea regarding the quality of the topic, most graduate students rely on the advice or discussion from the adviser. In addition, do not narrow down the research topic by adding a lot of buzzwords or do research not far away from others. It's best to trigger new ideas while listening to the keynote speech, or brainstorming with people in meetings; of course, you can also move on to problems that have not been properly solved after thorough surveys or even writing survey papers. The last approach of finding a topic is to implement first and then look for "real problems" identified in the process. No matter which approach you choose, you can think of a roadmap of topics first and work on it for years.

1-2. Partnership: Up, Down, Left and Right
The benefits of collaboration are not only integration and sharing of resources, but also better speed and quality due to mutual encouragement, triggering, and inspection. If you get to know people close to your field through conferences or academic services, you may schedule lectures and visits to them on your future conference trips. If you apply for IEEE Distinguished Lecturer for overseas lectures, the in-

depth discussion in the lectures may trigger common interest for collaboration. Regarding the collaborative model, it depends on the profile level of both parties. In any case, don't be credited as an author if without discernible contributions. Build long-term collaborative relationships to cultivate mutually beneficial partnerships.

1-3. Research publication: optimizing quality and impact
In Taiwan, over-emphasis is placed on class-A journals, thereby causing scholars to spend a lot of time producing a paper meeting the standards of class-A journals, but spend too little time thinking about influential topics, which however cannot enhance the paper value much. According to statistics, the average number of citations of survey papers is three times higher than that of research papers. But Taiwanese scholars rarely do survey papers because scholars are not familiar with the approach and writing in English is a bottleneck. However, it is actually a very good training for students. Nevertheless, Professor Lin also reminded that the number of survey papers should not be excessive. Finally, developing impact should not be limited to papers, for example, "industrial impact", such as patents, standards, and startups, should also be recognized. Nevertheless, it still depends on the market's acceptance, performance, and other impact indicators.

2. "Service" with international visibility
2-1. Journal editors: a long-term stream of manuscript reviews
If multiple papers have been published in a certain journal, and your overall research performance, such as citation count, matches the impact factor of the journal, you could volunteer yourself to the Editor-in-Chief as an Associate Editor, say near the end of each year. After serving as an editor for many years, you could also campaign for Editor-in-Chief appointed by a selection committee organized by the director of the society or the publisher. Being an editor is a professional academic service. The efficiency, quality and ethics of management are very important. The privilege to determine acceptance or rejection of a paper should be "used with caution and not abused". The acts of falsification, formation of gangs, and requesting authors to cite your own works should be prohibited. In addition, you should be familiar with and make good use of the online review system, 1-3 times a week, with a total time of 2-4 hours per week, so that you can efficiently and professionally select reviewers, remind reviewers to control the schedule, read review opinions, and make editorial recommendations or decisions.

2-2. Program Committee Members: a short-term burst of manuscript reviews
Similar to the concept of journal editors, you could volunteer yourself to the Program Chair as a program committee member if you have published multiple papers in a conference for years. A program committee member is responsible to handle the review of a large number, e.g., 10-20, of submissions within 1-2 months. The Program Chair must be familiar with the "batch" operation mode, in EDAS or other review systems, in order to assign hundreds of submitted papers to the program committee members, and finally decide the acceptance list based on the review

results.

2-3. compete for awards and positions: from small to big
Journals, including magazines, and conferences are the main publication platforms of an academic society. In order to dynamically strengthen the society's operations with conferences, journals, standard participation, awards, etc., a society runs many technical committees (TC) in different areas to support the operation of conferences and journals for their technical areas. Major decisions of a society must be reported to the Board of Governors (BoG) for approval. All competitions for positions and awards have their own qualification standards. Before running for election or self-nomination, you should evaluate whether your research performance, service experience, etc. are comparable to the "current or predecessor" in order to increase the chance of success.

3. "Teaching" with internationalization and globalization
3-1. English teaching: local students > foreign students
The purpose of using English as a medium of instruction (EMI) is to "solicit foreign students so as to stimulate the internationalization of faculty and local students." However, the ratio of foreign students and the ratio of EMI courses in various universities have stagnated at about 10% and 30%, respectively. Almost two-thirds of faculty and local students are not actually participating in EMI, which is the baseline of internationalization that we should strive to break. When faculty and students are able to discuss with foreign students of different nationalities in English consistently in labs or classes, the elevated ratios will make faculty and students more internationalized.

3-2. Teaching internationalization: going abroad and transnational
As mentioned above, it is easy to establish a partnership through speech arrangements. It is not difficult to arrange 5-10 speeches in 2-4 overseas trips a year, either proactively or passively by invitations. Short lectures can be arranged during visits, or full courses could be offered at online teaching platforms such as Coursera. Unfortunately, the Ministry of Education and many universities have not negotiated with Coursera yet to get authorized to offer courses there. Therefore, at present, this teaching model is not common in Taiwan.

3-3. Globalization of teaching materials: publishing textbooks
From teaching a class with your mouth to teaching the world with textbooks, globalization can be achieved by publishing textbooks with international publishers. Although getting a manuscript ready for publishing takes much work, you can begin with preparing your own teaching slides, accumulate these slides for two or three years, and then convert them into chapters of the textbook. After passing the review on a book proposal and the first chapter, you would sign the contract, and then summit all chapters according to a schedule. After being edited and revised, you would proofread the final draft to ensure your manuscript ready for publication.