連訓練人才的人才都不夠，各大學出現教授荒！
陽明交大資訊學院如何出奇招吸引兩位年輕女學霸加入

文／林宏文，本文轉載自今周刊

陽明交大資訊學院今年加入兩位優秀的助理教授，左邊是張庭榕，右邊是顏羽君。

近年來電子資訊產業發展迅速，到處都缺人才，台灣電子業以高薪爭取優秀人才，頂大電機電子研究生畢業後，已有機會拿到年薪 200 萬元的高薪工作，超過國內許多大學教授的薪資。在這種薪資結構下，也難怪台灣許多大學都很難爭取優秀教職員加入，成為大學培育年輕師資的最大障礙。

去年 4 月，我回陽明交大母校參加校慶，抽空去資訊學院串個門子，聽到聖洋科技執行長、交大資訊工程系友會會長邱繼弘演講，他提到過去兩年資訊學院曾發出九張聘書，但這些畢業自國外名校的博士，最後都選擇放棄，沒有到陽明交大報到。

當時我很感慨地寫了一篇「台灣半導體人才面臨最大危機，不只學生太少，連教授都請不起」的文章，談台灣目前不只企業找不到足夠人才，連訓練人才的人才也不夠，這將是台灣產業發展的最大隱憂。

當時這篇文章曾引發一些話題與討論，不過，今年陽明交大資訊學院的招募情形已有明顯好轉。今年 2 月間，陽明交大資訊學院新加入兩位助理教授張庭榕及顏羽君，資訊學院院長陳志成很開心地告訴我，她們兩位都是優秀的年輕學者，願意選擇來陽明交大任教，資訊學院終於可以擺脫人才難覓的困境，陽明交大的經驗及作法，或許可以提供國內大學爭取優秀海外學人回國貢獻的參考。

於是，陳院長安排我於今年校慶日，與兩位年輕教授做訪談。兩位教授分別畢業自全球排名前十的普林斯頓及伊利諾大學香檳分校，也都在取得博士學位後在美國工作，但最後都選擇回到台灣，而且加入陽明交大資訊學院。她們如何做決定及思考未來，很具參考性，也值得在此與大家分享。

張庭榕：趁著年輕時做自己想做的事

首先，我請教她們兩位，如今人工智慧（AI）當道，許多公司都用高薪吸引人才，兩位都是優秀且學有專精的資訊相關人才，也是許多國內外企業積極爭取的目標，為何最後選擇回台任教，而不是到業界工作？

張庭榕說，對於選擇學界或業界，她沒有特別偏好，她說自己從小讀書就沒有太大壓力，父母也都很尊重她，讓她自己選擇。新竹女中畢業後，她順利考上交大電機資訊學士班，還到伊利諾及康乃爾大學做短期交換學生，也做了很多有趣的研究。

例如在康乃爾時，她與美國教授做研究，是探討美國人的長相與姓名的關連，把很多美國民眾的照片與名字輸入，做大數據分析 ，可以從照片就判斷這個人可能叫什麼名字，相當有趣。

張庭榕取得陽明交大電機資訊學士後，直接申請攻讀美國博士，結果普林斯頓給了她全額獎學金，她就決定去了。當時有人跟她說，為何不去找高薪的工作，念博士 CP 值很低，而且還可能嫁不出去。但她聽了都笑一笑，依然我行我素，反正自己喜歡讀書，開心做自己就好。

張庭榕在美國拿到博士學位後，曾在一家美國 AI 晶片新創公司 SambaNova 工作，後來還從紐澤西搬到德州，身邊全都是男性工程師，只有她一位女生。不過，她也很享受那個環境，「反正女生廁所只有我一個人用，挺好的。」

後來，張庭榕決定回母校任教，是因為想做自己覺得有趣的事，朝計算機結構、 數位系統設計等領域發展。她說，去企業工作，通常研究與工作都是被指定的，很難自己選擇，而且她也很清楚，「當開始享受領高薪的快樂時，大概就回不來了。」因此，她要趁著年輕時做自己想做的事。

回母校任教，除了環境熟悉外，張庭榕也提到，陽明交大資訊學院相對年輕化，是她選擇時很重要的考量。她認為，助理教授比例高，做的題目也新，感覺上會更有活力，大家可以互相討論學習的地方很多，而且學校願意培養年輕人，也代表學校願意傳承且重視未來。

張庭榕說，她在普林斯頓時，助理教授占全部教授的 20%，但台灣的大學普遍都低於 10%，至於陽明交大資訊學院目前總計 69 位教授，其中 9 位是助理教授，比例達到 13%，在國內大學算是非常高的，這是她選擇回母校任職很重要的原因。很多學校這幾年沒有年輕教授加入，等到資深教授逐步退休後，很容易出現人才斷層。

顏羽君：取得家庭與職涯平衡點非常重要

另一位新任助理教授顏羽君，求學過程中一直是學霸級人物，一路從師大資工系、台大資工所，之後獲得全額獎學金自美國伊利諾大學香檳分校（UIUC）取得資訊工程博士。研究領域則是目前很熱門的人機互動、群眾智慧及人智協作等。

顏羽君在博士期間便被知名企業 Adobe Research 聘為實習研究員兩年，畢業後更被美國國家科學委員會 (National Science Foundation) 評選為年度創新科技新秀學者 (Computing Innovation Fellow)，給予高額獎金至加州大學聖地牙哥分校 Design Lab 擔任博士後研究員，直到去年決定返回台灣投入學界。

不只顏羽君是學霸，她家中四個兄弟姐妹也全都擁有博士學位，大姐往音樂發展，和她都投身學界成為教授，弟弟妹妹則分別進入 Meta 及 Amazon 服務。

顏羽君說，在學術界服務，不僅能延續自己對學術研究的熱情，在題目選擇上也有更大的自由。她發現在業界雖然也有機會進行研究，但方向通常受限於公司的發展方針，甚至因為同業競爭，有些前端研究不能對外發表。另外，從事教職的過程中，能獲得培養創新科技人才的成就感，這也是相當重要的事。

顏羽君的先生也是美國伊利諾大學香檳分校的電機博士，原本在美國英特爾 (Intel) 公司擔任主任工程師，在了解她對台灣學術界的期許和熱情後，決定陪她回家鄉，並且加入台灣谷歌 (Google) 工作。

顏羽君說，取得家庭與職涯的平衡點，對她來說非常重要，而回台灣的另一個重要因素之一，便是希望讓長輩有更多時間與自己的小孩相處。也幸好有父母的大力支持，讓她與先生可以偶爾喘口氣。

顏羽君說，她回台灣時，只申請陽明交大的教職，因為陽明交大一向是工程很強的學校，她在 UIUC 的指導教授也收過不少交大學生，對於她要回陽明交大任教也相當祝福。此外，陽明交大資訊學院有不少老師是她素來很景仰的人，例如林文杰、張永儒老師，她很早就知道他們的成就，希望找機會和他們合作。

顏羽君也說，她其實很早就想往學界發展，但國內大學的薪資水準確實與國外有很大差距，但與陽明交大資訊學院接觸的過程中，學校一直很有誠意地彌補薪資上的差距，並且提供許多其他的支援，因此才大幅增加她回國的意願。

至於談到自己的未來規畫，顏羽君說，選擇陽明交大的教職工作，也不一定就會終老在此，或許有一天學校的研究或任務達成時，去業界也不是不可能。在她的想法裡，未來的職場生涯還很長，重點是要持續保持競爭力，不是進一個學校就是終點，也不用當成一輩子的工作。

校友募款彌補薪資　有助於吸引年輕學者回台任教

在很現實的待遇問題上，目前台灣的大學教授薪資，由於受限於教育部規定，助理教授月薪只有 8 萬餘元，即使是正教授頂多也只拿 13 萬餘元，這種薪資在人才競爭激烈的當下，根本一點吸引力都沒有。也因為這個限制，讓許多大學理工科系根本找不到年輕學者加入，新聘教授名額一直空缺的奇特現象。

陽明交大資訊學院院長陳志成說，過去教育部有提供玉山青年學者，在教授薪資外，每年可再增加最多 150 萬元的獎金，以助理教授每月薪資只有 8 萬餘元，若再加上平均每個月增加 12.5 萬元 (150 萬元除以 12 個月) 的獎金，月薪就明顯拉高。不過，玉山青年學者名額有限，不是所有人都申請得到。

陳志成說，也因為這些限制，因此陽明交大向許多熱心的校友募款，已獲得不少捐助，包括校方新增校長青年獎座，另外資訊學院也有系友捐款的講座，加入資訊學院的助理教授，若申請不到玉山青年學者，就可以申請陽明交大校長青年獎座，若再申請不到，也一定有資訊學院系友捐款的獎座，可以彌補目前薪資偏低的問題，這是今年資訊學院邀請年輕學者回台任教很大的誘因。

陳志成也說，要請年輕學者回國任教，不能只靠熱情，還是要考量現實的待遇問題。他與這些年輕學者溝通，國外企業或學校提供的薪資可能很高，但以美國為例，不只稅課得很重，生活開銷也很高，能夠存下來的錢並不多，但若在台灣，有學校及學院補貼，可以留下來的錢說不定更多。

去年 3 月，台灣 IC 設計產業發表政策白皮書時，包括聯發科董事長蔡明介等多位 I C 設計領袖一起出席，其中奇景光電執行長吳炳昌提到，台灣目前不只企業找不到足夠人才，連訓練人才的人才也不夠了。

人才絕對是未來產業發展最大的優勢，台灣目前當然要想辦法把優秀的台灣子弟留下來，更要努力吸引世界各國人才，因此，薪資有無競爭力，絕對是關鍵因素。

陽明交大一直擁有最熱心的校友支持，如今對於吸引年輕人才已初見成效，也讓資訊學院過去兩年找不到人才的困擾一掃而空，或許這也可以成為國內其他大學攬才與傳承很好的示範。

University Professor Shortage Crisis:

NYCU's College of Computer Science Implements Surprising Tactics to Attract Two Young Female Scholars

This year, the College of Computer Science at National Yang Ming Chiao Tung University welcomed two outstanding assistant professors: Yu-Chun Yen (third from the left) and Ting-Jung Chang (fourth from the left), pictured here with the dean, Jyh-Cheng Chen (second from the left), and other colleagues from the college.

The electronics and information industry has rapidly expanded in recent years, creating a widespread talent shortage. Taiwan's electronics sector offers high salaries to attract skilled professionals. Graduates from top universities in electrical engineering and electronics have opportunities to secure high-paying jobs with annual salaries of up to 2 million Taiwanese dollars, surpassing the salaries of many university professors in the country. Given this salary structure, it is not surprising that many Taiwanese universities struggle to recruit top faculty members, posing a significant obstacle to nurturing young teaching talent in universities.

In April 2023, during my visit back to my alma mater, National Yang Ming Chiao Tung University (NYCU), for its anniversary celebration, I took the opportunity to visit the College of Computer Science (CCS). While there, I attended a speech by Nathan Chiu (邱繼弘), CEO of cacaFly (聖洋科技) and chairman of the alumni association for the Department of Computer Science at NYCU. He mentioned that over the past two years, the CCS had issued nine job offers to Ph.D. graduates from prestigious overseas universities. However, none of these candidates ultimately joined NYCU.

At that time, I penned an article titled “Taiwan Semiconductor Talent Facing Its Greatest Crisis: Not Only a Shortage of Students But Also Unaffordable Professors,” expressing my deep concern. The article discussed how Taiwan is currently facing a talent shortage that companies need and a scarcity of educators capable of nurturing such talent. This poses the most significant hidden threat to Taiwan's industrial development.

This article sparked discussion and debate; however, recruitment at the College of Computer Science has significantly improved this year. In February, the CCS welcomed two new assistant professors, Ting-Jung Chang and Yu-Chun Yen. Professor Jyh-Cheng Chen, the dean of the CCS, happily informed me that they are outstanding young scholars who chose to join NYCU. The CCS has finally overcome the challenge of talent scarcity. NYCU's experience and practices may serve as a reference for other universities in Taiwan seeking to attract excellent overseas scholars to contribute to the country.

As a result, Dean Chen arranged for me to interview the two young professors on this year's anniversary celebration day. Both professors graduated from globally top-ten-ranked universities, Princeton and the University of Illinois at Urbana-Champaign. They also worked in the United States after obtaining their doctoral degrees, but ultimately, they chose to return to Taiwan and join the College of Computer Science at NYCU. Their decision-making process and thoughts about the future are highly informative and worth sharing with everyone.

First, I asked both of them, given the prominence of artificial intelligence (AI) today and the high salaries offered by many companies to attract talent, why they ultimately choose to return to Taiwan to teach instead of pursuing careers in the industry, especially considering their expertise and qualifications, which are highly sought after by both domestic and international companies?

Ting-Jung Chang: Doing What You Want While Young

Ting-Jung Chang stated that she does not prefer academia to industry. She mentioned that she hadn't felt much pressure about studying since childhood, and her parents respected her decisions, allowing her to choose freely. After graduating from National Hsinchu Girls' Senior High School, she smoothly entered the Electrical Engineering and Computer Science Bachelor's Program at NYCU. She also participated in short-term exchange programs at the University of Illinois and Cornell University, where she conducted various exciting research projects.

For instance, during her time at Cornell, Ting-Jung Chang researched the correlation between Americans' facial features and their names with an American professor. Together, they inputted numerous photos and names of American individuals for big data analysis. The results were quite fascinating.

After obtaining her Bachelor's degree in Electrical Engineering and Computer Science at NYCU, Ting-Jung Chang applied directly to pursue a Ph.D. in the United States. Princeton University offered her a full scholarship, so she accepted it. At that time, some people advised her to seek high-paying jobs instead, mentioning that pursuing a Ph.D. had low value and might affect her marriage prospects. However, she simply laughed it off and remained steadfast in her decision. She followed her own path, stating that everything would be fine as long as she enjoyed studying and was happy being herself.

After obtaining her Ph.D. in the United States, Ting-Jung Chang worked at a US AI chip startup called SambaNova. She later moved from New Jersey to Texas, where she found herself surrounded by male engineers, being the only female in her environment. However, she also enjoyed the atmosphere, stating, "Well, at least I have the women's restroom all to myself. It's pretty nice."

Later, Ting-Jung Chang decided to return to her alma mater to teach because she wanted to pursue what she found interesting, such as computer architecture and digital system design. She mentioned that research and work assignments are usually predetermined in corporate settings, making it challenging to have autonomy. Moreover, she knew that once she began to enjoy the perks of a high-paying job, it would likely be difficult to return to academia. Therefore, she aimed to do what she wanted while still young.

Returning to her alma mater to teach, Ting-Jung Chang mentioned that besides the familiar environment, the relative youthfulness of the CCS at NYCU was an essential factor in her decision. She noted that the high proportion of assistant professors and the freshness of the topics being pursued created a vibrant atmosphere. There were ample opportunities for mutual learning and discussion among colleagues. Moreover, the school's willingness to cultivate young talent reflected its commitment to succession and future-oriented values.

Ting-Jung Chang mentioned that during her time at Princeton, assistant professors comprised 20% of all faculty members, while in Taiwan, universities generally have less than 10%. As for the CCS at NYCU, it currently has a total of 69 professors, with 9 being assistant professors, accounting for 13% of the total, which is considered very high compared to other universities in Taiwan. This high proportion of assistant professors was crucial in her decision to return to her alma mater. Many universities in Taiwan have not seen the addition of young professors in recent years, which could lead to a talent gap when senior professors gradually retire.

Yu-Chun Yen: Striking a Balance Between Family and Career is Crucial

Yu-Chun Yen, another newly appointed assistant professor, has been an academic achiever throughout her educational journey. She graduated from the Department of Computer Science at National Taiwan Normal University. She pursued her master's degree at the Department of Computer Science and Information Engineering at National Taiwan University. Afterward, she received a full scholarship to pursue her Ph.D. in Computer Engineering at the University of Illinois at Urbana-Champaign (UIUC) in the United States. Her research focuses on popular areas such as human-computer interaction, crowdsourcing, and human-AI collaboration.

Yu-Chun Yen was recruited as an intern researcher by the renowned company Adobe Research for two years during her doctoral studies. After graduation, she was selected as a Computing Innovation Fellow by the National Science Foundation in the United States, receiving a substantial grant to serve as a postdoctoral researcher at the Design Lab of the University of California, San Diego. She decided to return to Taiwan last year to pursue a career in academia.

Yu-Chun Yen mentioned that serving in academia allows her to continue her passion for academic research and provides greater freedom in choosing research topics. She found that while there are opportunities for research in the industry, the direction is often constrained by the company's development policies. Moreover, some cutting-edge research cannot be published externally due to peer competition. Additionally, the teaching process provides a sense of achievement in nurturing innovative technology talent, which is also crucial.

Yu-Chun Yen's husband is also a Ph.D. graduate in Electrical Engineering from the University of Illinois at Urbana-Champaign. He initially worked as a principal engineer at Intel in the United States. After understanding her expectations and passion for Taiwan's academic community, he accompanied her to their hometown and joined Google Taiwan.

Yu-Chun Yen mentioned that balancing family and career is crucial for her. Another significant factor in returning to Taiwan is her desire to allow her parents more time with their grandchildren. Fortunately, with her parents' strong support, she and her husband can occasionally catch their breath.

Yu-Chun Yen mentioned that she only applied for a teaching position at NYCU upon returning to Taiwan. This decision was made because NYCU has always been known for its strong engineering programs. Her advisor at UIUC had also supervised many NYCU students, so he supported her decision to return to NYCU to teach. Additionally, she admires many professors at NYCU's College of Computer Science, such as Professor Wen-Chieh Lin and Professor Yung-Ju Chang. She has long been aware of their achievements and hopes to have the opportunity to collaborate with them.

Yu-Chun Yen also mentioned that she had wanted to pursue an academic career early on, but the salary level at domestic universities is significantly lower than overseas. However, during her interactions with NYCU's College of Computer Science, the school has worked earnestly to bridge the salary gap and provided many other forms of support. This significantly increased her willingness to return to Taiwan.

Alumni Fundraising to Supplement Salaries Helps Attract Young Scholars to Return to Teach in Taiwan

Regarding the very real issue of compensation, the salaries for university professors in Taiwan are currently limited by regulations from the Ministry of Education. Assistant professors receive a monthly salary of just over 80,000 NT dollars, and even professors receive no more than just over 130,000 NT dollars. In the fiercely competitive environment for talent, these salaries are simply not attractive. This restriction has also led many universities, especially those in STEM fields, to struggle to recruit young scholars, resulting in vacant positions for newly appointed professors.

Jyh-Cheng Chen, the dean of the CCS, stated that in the past, the Ministry of Education provided the Yushan Youth Scholar program, which offered an additional annual bonus of up to 1.5 million NT dollars on top of professors' salaries. This was intended to supplement the monthly salary of assistant professors, which is just over 80,000 NT dollars. The monthly salary would be significantly increased with an additional bonus averaging 125,000 NT dollars per month (1.5 million NT dollars divided by 12 months). However, the Yushan Youth Scholar program has limited quotas, and not everyone can successfully apply for it.

Jyh-Cheng Chen also mentioned that due to these restrictions, NYCU has been actively seeking donations from enthusiastic alumni, which has resulted in substantial contributions. These include establishing the President's Young Scholar Award by the university and endowed chairs funded by alumni specifically for the CCS. Assistant professors joining the CCS who cannot secure the Yushan Youth Scholar program can apply for the President's Young Scholar Award. If that option is not available, endowed chairs are also funded by alumni of the CCS. These initiatives aim to address the issue of relatively low salaries and serve as significant incentives for young scholars to return to Taiwan and teach at the College of Computer Science this year.

Jyh-Cheng Chen emphasized that inviting young scholars back to Taiwan to teach cannot rely solely on enthusiasm; the practical issue of compensation must also be considered. In his discussions with these young scholars, he highlighted that while salaries offered by foreign companies or universities may be high, in countries like the United States, heavy taxation and high living expenses often leave little room for savings. Conversely, with subsidies provided by universities and colleges, scholars may save more money by staying in Taiwan.

In March 2023, during the release of the policy white paper on Taiwan's IC design industry, several IC design leaders, including MediaTek Chairman Ming-Kai Tsai, attended the event. Wu Bing-Chang, CEO of Himax Technologies, mentioned that Taiwan is currently facing a shortage of talent for companies and a shortage of talent for training purposes.

Talent is undoubtedly the most significant advantage for future industrial development. Taiwan must find ways to retain outstanding Taiwanese talents and work even harder to attract talents from around the world. Therefore, the competitiveness of salaries is undoubtedly a crucial factor.

NYCU has always enjoyed the most enthusiastic support from its alumni. The initial success in attracting young talents has alleviated the College of Computer Science's previous two-year struggle in recruitment. Perhaps this could serve as an excellent demonstration for other universities in Taiwan in talent acquisition and succession planning.