研習營-語言學門-語言與科技	
講題領域	計算機語言學
講員	張俊盛
講題	語言與科技
講題簡介	人工智慧與自然語言處理技術日益成熟，許多輔助語言學習與語言研究的工具亦隨之開發，人文領域的研究者能夠運用科技的力量進行語言研究與教學成為現今跨領域研究的重點之一。本課程先簡介自然語言處理基本概念，實務面上，我們將介紹幾個好用的資料庫與工具，如 Antcount、Coca、Linggle 等以及如何將工具用於研究與教學，此外，我們將教授簡單程式概念，帶領學員實際使用程式進行更符合研究需求的資料處理與計算，包含以下主題：pdf 轉檔、網路爬蟲、Unix 指令、Concordancer、維基百科、寫作輔助等。
建議閱讀文獻	Bird, S., Klein, E., & Loper, E. (2009). *Natural language processing with Python: analyzing text with the natural language toolkit*. O'Reilly Media, Inc. Church, K. W. (1994). Unix™ for poets. *Notes of a course from the European Summer School on Language and Speech Communication, Corpus Based Methods*. Downey, A. (2012). *Think Python.* O'Reilly Media, Inc. Mihalcea, R. (2007). Using wikipedia for automatic word sense disambiguation. In: C. Sidner, T. Schultz, M. Stone, & C. X. Zhai (Eds.), *Human Language Technologies 2007: The Conference of the North American Chapter of the Association for Computational Linguistics* (pp. 190-203). NAACL HLT 2007: Proceedings of the Main Conference; Rochester, NY, April 2007. Association for Computational Linguistics Niemann, E., & Gurevych, I. (2011). The people's web Meets linguistic knowledge: automatic sense alignment of Wikipedia and Wordnet. In *Proceedings of the Nineth International Conference on Computational Semantics* (pp. 205-214). Association for Computational Linguistics. Ramalho, L. (2015). *Fluent python: Clear, concise, and effective programming* (1st ed.). O'Reilly Media, Inc.

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著作	Yang, C-Y, C-Q Peng, H-L Tu, J-J Chen and Jason S. Chang. (2019). Extracting Chinese Lexical Grammar Patterns Using Dependency Parsing. Paper submitted to IJCLCLP, 5/30 (under review). Chen, J-J, H-L Tu, C-Y Yang, C-W Li and Jason S. Chang. (2019). Chinese Spelling Check based on Neural Machine Translation. Paper submitted to IJCLCLP, 5/21 (under review). Chen, MH, CC Huang, ST Huang, JS Chang, HC Liou. (2015). An Automatic Reference Aid for Improving EFL Learners' Formulaic Expressions in Productive Language Use, Learning Technologies, IEEE Transactions on Learning Technologies 7 (1), 57-68. Chen, MH, ST Huang, JS Chang, HC Liou. (2015). Developing a corpus-based paraphrase tool to improve EFL learners' writing skills, Computer Assisted Language Learning 28 (1), 22-40. Hu, SM, V Vongpumivitch, JS Chang, HC Liou. (2014). The effects of L1 and L2 e-glosses on incidental vocabulary learning of junior high-school English students, ReCALL 26 (01), 80-99. Huang, Guan-Cheng, Jian-Cheng Wu, Hsiang-Ling Hsu, Tzu-Hsi Yen, and Jason S. Chang. (2014). Automatic Move Analysis of Research Articles for Assisting Writing, *International Journal of Computational Linguistics & Chinese Language Processing* 19:4 2014, 29-46. Wu, Jian-cheng, Hsun-wen Chiu, and Jason S. Chang. (2013). Integrating Dictionary and Web N-grams for Chinese Spell Checking, *International Journal of Computational Linguistics & Chinese Language Processing* 18:4, 17-30. Wu, Jian-cheng, Jim Chang, and Jason S. Chang. (2013). Correcting Serial Grammatical Errors based on N-grams and Syntax, *International Journal of Computational Linguistics & Chinese Language Processing* 18:4, 31-44. Huang, CC, MH Chen, PC Yang, JS Chang (2013). A Computer-Assisted Translation and Writing System, ACM Transactions on Asian Language Information Processing (TALIP) 12 (4), 15. Chang, Joseph Z., Jason S. Chang, and Jyh-Shing Roger Jang. (2013). Learning to find translations and transliterations on the web

	based on conditional random fields." IJCLCLP 18.1 (2013): 19-45.
榮譽獎項	龍騰論文指導獎、科技部 105 年度研發創作獎