<div align="center">**Research Assessment Exercise 2020**
<u>**Impact Case Study**</u></div>

University: The Chinese University of Hong Kong
Unit of Assessment (UoA): 36

Title of case study: From Philosophy to the Implementation of the "Multi-function Chinese Character Database" with its Widespread Influence (PI: Professor Tze-wan KWAN)

(1)   Summary of the impact (indicative maximum 100 words)
The Implementation of the captioned database by the PI over the past ten years was inspired by interdisciplinary research involving philosophy (particularly phenomenology), Chinese paleography, linguistics, and information engineering. With increasing acclaim and influence, as documentable through serial funding, award winning, formidable search counts, extensive hyperlink requests, positive usage feedbacks, and peer-reviewed as "*a 'playfully' interesting knowledge base*" and as "*the best Chinese language tool now available on the internet*", the database understands itself as contributing to the enrichment of educational infrastructure to facilitate the teaching and learning of the Chinese language and script for many generations to come.

(2)   Underpinning research (indicative maximum 500 words)
The captioned database project was the result of some major research themes undertaken by the PI over the past twenty years.
1) The work of Wilhelm von Humboldt, German idealist, polyglot, and acclaimed father of general linguistics, allows the PI (2001-paper) to gain insight into the development of linguistic meaning in general and of Chinese script in particular. Humboldt's idea that Chinese exhibits the mechanism of "analogy of script" *vis-à-vis* "analogy of sound" in Indo-European languages enables him to underpin the idiosyncrasy of Chinese in respect to its "derivation and combination" of meanings.
2) In PI's 2011-paper on abstract ideas in Chinese, *Lishu*-transformation(隸變) was related as a crucial development of the Chinese script from archaic/ancient into modern forms. Consequently, writing became stylized, leading to relative ease of use and stable dissemination through time/space. But this came with the price of mismatching, confusion and even loss of cognitively meaningful information that prevailed in earlier scripts. Using modern scripts alone, a learner of Chinese, relying on distorted information, is cut off from the rich etymological roots of the past.
3) In PI's 2014/15-paper, Husserl's distinction between "compounding and modification of meaning" is shown to be in line with Humboldt's approach. Husserl's conceptual tools such as "intentional acts", "categorial intuition", "part-whole analysis", "pure logic of meaning", "meaning surpluses" contribute to the analysis of the "ways" how meaning is constituted in Chinese scripts.
4) In PI's 2017-paper, Merleau-Ponty's "correlation" between the human body and the "world-as-perceived" is argued to be pertinent to the genesis of meaning of the Chinese script. A detailed analysis of the ancient Chinese lexicon *Shuowen*, attested by archaic script tokens, reveals that Chinese script made extensive use of script components derivable mainly from a) the human body and body parts, b) bodily movements, c) natural objects, d) plants and animals, and e) artefacts and cultural products. This basic constituency of Chinese script components proves consistent with Merleau-Ponty's phenomenological observation. They jointly give support to the "componential" approach of the database.
5) Notwithstanding mainstream emphasis on sound, the central role of the graphical-visual aspect of Chinese script has hitherto been underestimated. We observe that the 214-radicals-system of the authoritative *Kangxi Dictionary* was adversely influenced by *lishu*-transformation. This research advocates a "return" to the archaic/ancient scripts such as bronze and oracle bone scripts, and the supplement of the cognitively inadequate system of "radicals-部首" through a system of "script components-部件", managed through IE techniques. By tracing back to the archaic forms, the genealogy of Chinese scripts is better accounted for (2015/2018 papers). With the implementation of this philosophy into a database, together with innovative visual gadgets ("componential trees/formulas"), accompanied by other useful features, the "Multi-function Chinese Character Database" promises to contribute to Chinese education for future generations. Released in 2014, the database was upgraded in June 2018 upon completion of another QEF project.
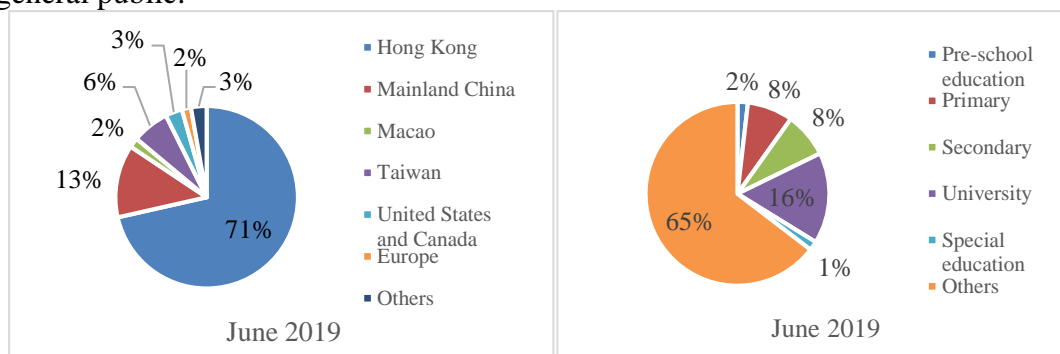
(3) References to the research (indicative maximum of six references)

1. "Wilhelm von Humboldt on the Chinese Language. Interpretation and Reconstruction", originally guest lecture at Swiss Federal Institute of Technology (ETH), Zürich. Published: *Journal of Chinese Linguistics*, Vol. 29, no. 2, Berkeley, 2001, pp. 169-242.

2. "Abstract Concept Formation in Archaic Chinese Script Forms: Some Humboldtian Perspectives", *Philosophy East & West*, Vol. 61, no. 3 (July 2011), pp. 409-452. (http://muse.jhu.edu/article/446714) // This paper has also been translated into Slovenian.

3. "Phenomenological Interpretation of the 'Six Ways' of Chinese Script Formation", lecture at FU Berlin (25-09-2010). Repeated at Katholiecke Universiteit Leuven (19-11-2013), U. of Freiburg (22-11-2013), and U. of Hawai'i (03-03-2014). Published: *Berliner Beiträge zum Vorderen Orient* (BBVO), Vol. 23 (Berlin: Pe-We-Verlag, 2014), pp. 157-202. // Chinese version as keynote speech: "Workshop on the Philosophical Reflections on Chinese Language and Script", held at National Chengchi U. (22-05-2010), then at Renmin U. of China (20-12-2011), and Inst. of Advanced Studies in Humanities and Social Sciences, Nat'l Taiwan U. (16-11-2012). Published: "漢字六書學說的現象學詮釋", 漢學研究, 33, 2 (2015), pp. 49-102.

4. „Die vierfache Wurzel des Gedankens von ‚sein' in der chinesischen Sprache und Schrift", in *Geschichte-Gesellschaft-Geltung, XXIII. Deutscher Kongress für Philosophie*, (ed.) M. Quante et al. (Hamburg: Meiner, 2016), pp. 297-314. // English version "On the Fourfold Root of the Notion 'Being' in Chinese Language and Script", presented at U. of Bonn (12-07-2015), Germany. Publ. in *Journal of Chinese Philosophy,* 44:3-4 (Sept.-Dec. 2017), pp. 212-229.

5. "Bodily Dasein and Chinese Script Components: Uncovering Husserlian/Merleau-Pontian Connections", Int'l Congress: "Embodiment. Phenomenology East/West", Free University of Berlin, 4-7 May 2016, Berlin. Paper repeated at the Int'l Workshop: "Understanding, Knowledge & Truth", organized by Renmin University of China and University of Bonn, Germany, 16-17 July 2016, in Beijing. Published: *Yearbook for Eastern and Western Philosophy*, Volume 2 (2017), Berlin: de Gruyter, pp. 178-207.

6. "Philosophia in Sensu Cosmico: Kant's Notion of Philosophy with Resonance from Chinese Antiquity", one of 3 keynote lectures of the int'l. conference "Kant-in-Asia-II", held 17-20 Dec 2016, Hong Kong Baptist University. *Kant on Intuition: Western and Asian Perspectives on Transcendental Idealism*, (ed.) S.R. Palmquist (London: Routledge, 2018), 219-237.

(4) Details of the impact (indicative maximum 750 words)

a. Our Work on the "Multi-function Chinese Character Database" (漢語多功能字庫) was publicly released since June 2014 and upgraded in 2018 with the following URL: http://humanum.arts.cuhk.edu.hk/Lexis/lexi-mf/ . At the launching event, 200+ teachers and principals from the Hong Kong school sector have signed-up for two seminar sessions. Since then, the database has recorded to this date an accumulative access count of 10,808,352 and a search count of 61,536,704, amounting to an average of 32,000+ searches per day. During peak hours, the database is often hooked-up simultaneously by up to 500 users.

b. Many teachers reported to us that they find our database literally indispensable for their work. A good example was the usage sharing workshop organized in May 2019, with three serving teachers sharing their experience. The following are excerpts from **videotaped testimonies** of two teachers: Ms Sabrina Pik-Shan Fung: "*In the midst of many frustrations while doing my professional work, the appearance of the MF-Chinese-Character-Database is like the light of dawn shining through my life… The database is a very handy tool that serves all my needs… Besides using it myself, I recommended it to my husband who works on electronics and he immediately loved it. I strongly recommend other teachers to set up links/bookmarks to the database…*" Ms. Gloria Wing-Sze Ho: "*I have the Database installed on my desktop, my tablet, as well as my mobile phone and use it every day so regularly as if taking medication* [laughs]. *Besides using the database for work, I also use it in my role as parent. The database enriches us while preparing for classes, it is equally useful for parents in providing good ideas in the education of their children.*" Numerous similar remarks can be found in open-ended feedback to questionnaires we posted online.

c. In recognition of the potential of the database to scholarship and to basic education, the HK Quality Education Fund has offered our research team 4 major grants in a row, (HK$1,999,000 in 1999, HK$757,000 in 2004, HK$1,948,900 in 2012, and HK$2,966,400 in 2014 respectively) with grant monies totaling HK$7,671,300.

d. According to a recent questionnaire conducted online, 71% of our users are from HK, but we do have a considerable number of users from other places including Taiwan, mainland China, Macau, Americas, and Europe. Another important finding was that while only 35% of our clientele is from the education sector (University 16%, secondary 8%, primary 8%, pre-school ed. 2%, special ed. 1%), 65% of our clientele is from other sectors than education. This outcome is encouraging as it indicates that our database found appeal not only among educators, but with the general public.

June 2019   June 2019

e. In Dec-2013, a "predecessor" database we implemented won the competitive "Meritorious Websites Award" (top of list) organized by TELA of the Hong Kong Government.

f. In 2017 a very positive peer review of our database appeared in Taiwan. In this review, our database was compared very favorably to a mega-project implemented in Taiwan. The following is verbatim translations of excerpts from the review: "*I discovered earlier the 'Multi-function Chinese Character Database' (hereafter MFCCD) and was so fascinated by it… The database is a 'playfully' interesting knowledge base for Chinese paleography [...] More importantly, the MFCCD could be the best Chinese language tool now available on the internet [...] For students of Chinese, it is the best revision platform; for Chinese language teachers, it is the best source while preparing for their lessons; for researchers on paleography, it is the sharpest reference tool; for the general public, it is the best channel to become informed about Chinese culture as deposited in the Chinese script. [...] The [etymological] explanations are comprehensively written…*"

g. When the PI announced on Facebook on 2-Aug-2018 that the database project team was bidding farewell (at least temporarily) after many years of work, we received altogether **930+Likes**, 165 Shares and 46 Comments, as expressions of gratitude. Here are a few examples: Julian Chan: "*This website has influenced a whole generation of educators…*"; Hui Chi-Wing: "*Extraordinary contribution…*"; Rita Wong (former cuhk-sub-librarian): "*Benefit our community*"; Hila Wong: "*I learned a lot, because of this webpage I love Chinese ever more…*"; Zi-Jetau: "*Language scholars are using this page everyday…*"; Multiple: "…*Immeasurable beneficence* (功德無量, an old dictum expressing highest tribute)…".

h. An unknown party has used our website to make an app without our authorization, with acknowledgement though. We are in the process of reporting this to the Google team.

(5) Sources to corroborate the impact (indicative maximum of 10 references)

a. The Research team has received 4 major QEF grants in a row totaling HK$ 7,671,300. For a complete list of grants the PI received before his retirement as emeritus of philosophy in 2017, see http://humanum.arts.cuhk.edu.hk/~twkwan/kwan-grants-f.htm

b. Our "predecessor" database won the "Meritorious Websites Awards" competition organized by the Hong Kong Government, and listed **atop** a list of ten "Meritorious Websites" in December 2013. For the official Press Release of the Hong Kong Government in April 2014, see URLs: https://www.info.gov.hk/gia/general/201404/12/P201404110274.htm

c. the "Multi-function Chinese Character Database", received a very positive peer review, authored by a web KOL Esor Huang, published on 13-06-2017 on the web forum 電腦玩物 (www.playpcesor.com) registered in Taiwan. For the complete text of the review titled "漢語多功能字庫：文字學字典查中文的故事，國文老師必備網站 (Indispensable website for Chinese Language teachers)". Besides the excerpts as shown in Section (4), see also the following passage for more backgrounds "*Since 2013, a web site named 'Xiaoxuetang Paleographical Database' (XXT=小學堂) has been implemented in Taiwan jointly by i) Dept of Chinese, National Taiwan University., ii) Institute of History and Philology, iii) Institute of Information Science, and iv) Center for Digital Cultures (all units of Academia Sinica)... But the user interface of XXT database is not as user-friendly as that of MFCCD, and the way how its data is presented is more scattered... Moreover, XXT is not equipped with such comprehensive explanation and research information as in the MFCCD. Therefore, as for now, the "Multi-function Chinese Character Database" is a more handy reference for Chinese paleography, the careful survey of which I recommend to all users who are interested in knowing more about the stories and philosophies behind the Chinese scripts*." see URL: http://www.playpcesor.com/2017/06/chinese-character-database.html

d. The Education University of Hong Kong (香港教育大學) has an official webpage titled "Chinese: Language learning websites (中文網上學習資源)", in which 29 web resources are listed. The Multi-function Chinese Character Database is at the very top of the list: https://www.eduhk.hk/cle/en/language_enhancement_programme/chinese_programme/language_learning_websites

e. While the database was still in the making, our team has been visited by a host of international scholar, among which Professor Roger Ames of University of Hawai'i subsequently invited the PI to Honolulu to speak, *inter alia,* on the database. Ames also published a book in which our database has been cited some 25 times.[1]

f. Over the years, the PI has given lectures or taken part in conferences in USA, Germany, Belgium, Switzerland, Ireland, Japan, Korea, Taiwan, China. While most of the lectures are on academic issues related to philosophy of language and to the Chinese script, some were actually demos of the database upon request of the hosts. Particularly noteworthy are two special instances. The first was an invitation of the PI by the Philosophical Institute of Free University of Berlin to offer a course (taught in German) in the winter semester of 2017/18 on "Chinesische Sprache und Schrift in philosophischer Sicht" (Chinese Language and Script in Philosophical Perspectives), for which one session was organized as a demo of the database. (see: https://www.geisteswissenschaften.fu-berlin.de/v/dchan/gastprofessuren/fotos-seminar-Kwan/index.html) The second instance was a similar invitation of the PI to teach the same course (in Chinese) as VP to the National Chengchi University in Taiwan in fall 2018. The entire course, including the demo of the database, was videotaped (and transcribed) and now made available over the internet. (http://master-kwan.ccstw.nccu.edu.tw/)

g. When the PI announced on 2-Aug-2018 on Facebook that the database project team was bidding farewell (at least temporarily) after many years of work, we received altogether 910+ Likes, 44 Comments and 163 Shares. All the expressions of gratitude can still be viewed through the following link: (https://www.facebook.com/tzewan.kwan/posts/10156558439904476)

h. The app that was implemented using our data can be reached through this link: 漢語字庫 https://play.google.com/store/apps/details?id=com.nesnet.android.mfchinesedb This link, however, was blocked just then by the Google Removal Team according to the "Digital Millennium Copyright Act" after hearing our complaint. Google's letter to the PI regarding their decision to remove the infringing app can be found via this link: https://bit.ly/2ofvRD6

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[1] Roger Ames, *Confucian Role Ethics: A Vocabulary* (HK: Chinese University Press, 2011), See Chapter II, note 42; Chapter III, Notes 19, 34, 71, 72; Chapter IV, Notes 11, 14, 21, 23, 37, 54, 64, 72, 73, 74, 75, 84, 85; Chapter V, Notes 24, 29, 48, 49…