**Self Assessment of Reynold Cheng (September 2018)**

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| **1.** | **TEACHING Highlight your accomplishments, and progress toward the objectives for the current review, in teaching.** |
|  | The objective set from the previous PRD review period is: “Continue to develop the big data UCC course. Keep up with good teaching performance. Continue with the good training of RPG students”  I have met these objectives, as discussed below.   (A) Teaching and Student Supervision  1. In the Spring semester of 2017-18, I was the teacher of CCST9047 (The Age of Big Data), which is a common core course open to all students in HKU. The students’ feedback on theses course is generally positive, for example:  “clear explanation”; “He made the class interactive”; “He taught clearly. Very easy to understand”; “Teacher teaches really well and it is obvious that he does prepare fullheartedly”; “He included daily examples from time to time to arouse our interest”  Hence, in general, students can understand and follow my teaching well. The course effectiveness and teacher effectiveness scores for this course are 77.1 and 76.1, which are respectively better than the previous year’s course effectiveness (64.8) and teaching effectiveness (63.5). The class also has the same effectiveness score as the department’s average course effectiveness (77.1), and is higher than the average teacher effectiveness (74.3). I have improved the course by optimizing the course workload (e.g., have some more activities to be done in tutorials and classes, reduce the students’ preparation time etc.), and I have avoided putting tutorials on Saturdays.  I would also like to point out that CCST 9047 is challenging to teach, because it is not a traditional and technical computer science course. The class is big (over 100 students), and the students also have different academic backgrounds. I also have to manage five TAs, who have no experience with the course. Moreover, all other courses about Big Data in other schools are taught to CS or Engineering students only. Hence, we have to design new topics that are interesting and useful to students with a variety of backgrounds (e.g., medical, business, and arts). We have developed different teaching activities, including group discussions and debates on controversial topics. We have also found some videos on the Internet related to the course, and have designed handouts to ask students to analyze them. I have acquired a Teaching Development Grant, of HKD 50,000, in order to enhance the course materials. Dr. Henry Chang, the IT Advisor of the Office of the Privacy Commissioner for Personal Data, Hong Kong, and Mr. Nicholas Mak, Legal Director, Digital Transformation Microsoft Hong Kong, have also given an invited lecture to the class. We have asked students to use their notebook computers ormobile phones to answer in-class questions. We will continue to explore the use of new technologies to enhance the quality of the course.  2. In the Spring semester of 2017-18, I taught the course COMP3323A (Advanced Database Systems), which I delivered advanced topics in databases, including query optimization, spatial query processing, new indexing techniques, and data mining. The students’ feedback are generally positive, for example:  “The course is interesting. Covers a lot of topics which may inspired students to further learn more. The assignments are not boring in the sense that students don't feel repetitive and irritated when working on them for a long time”; “Interesting homeworks”; “The topics and the manner of teaching”  The course effectiveness and teacher effectiveness scores for this course are 80 and 86.1, which are respectively better than the department’s course effectiveness (77.3) and teaching effectiveness (81.3).   3. I have organized a 6-hour Trans-disciplinary Research Workshop on “Big Data Applications”, for the HKU Graduate School in December 2018 for the graduate students of HKU, who come from different disciplines. The workshop receives an effectiveness score of 86.36.   4. Mr. Jiafeng Hu, my PhD student who graduated in the summer of 2018, won the Hong Kong and China Gas Company Limited Postgraduate Scholarship 2017-18, after competition with four other outstanding candidates from the department.  5. Yunfan Kang won the Third runner-up prize for the HKU Final-Year Project Competition, on C-Explorer: Browsing Communities in Large Graphs, 2017-18. He was awarded the HKU Undergraduate Research Fellow Programme, for doing a project on community search, supervised by me, in June-August 2017.  6. Rutian Ma was awarded the HKU Undergraduate Research Fellow Programme, for doing a project on meta-path-based embedding, supervised by me, in June-August 2018.   (B) Curriculum Development and Reform  1. I was the Chair of the Departmental Research Postgraduate Committee (DRPC), and a member of the Faculty Higher Degrees Committee (FHDC). I was responsible for handling all academic affairs related to postgraduate students. I organized face-to-face or online interviews for applicants in Beijing, Shanghai, and Hong Kong. These interviews took place in September of 2017 and May 2018.   2. I formed a task force of 4 DRPC members, for working on a systematic reform of RPG curriculum. We have defined the core and elective courses, and redesigned the course offer schedule, so that a larger variety of courses can be made available to RPG students. 3. I monitored the maintenanceof a portal homepage for RPG recruitment. We have developed an Internet-based system, which allows teachers, RPG applicants, and student helpers to input and review applications.   4. I developed and maintained the Teaching Advisory Committee (TAC). The main role of the TAC is to oversee the progress of a research student and provide advice at different times, or checkpoints. This helps the DRPC to monitor the progress of the students, the quality of supervision, and the students’ expected graduation time. I have also developed an online system to support the TAC, where teachers and students can view and edit the meeting notes. I was responsible for setting up TAC meetings and membership.   5. I am a member of the Departmental Curriculum Development Committee (DCDC). I participated in the review and the improvement of the undergraduate degree curriculum.    (C) Teaching Innovations and Other Activities  1. In the Spring semester of 2017-18, I taught the common core course “The Age of Big Data” (CCST 9047), which was approved in June 2013. This is the fourth time that this course is offered. This course is challenging to teach, since it is not a traditional and technical computer science course. The class is big (over 120 students), and the students also have different academic backgrounds. Moreover, the related courses offered by other schools are taught to CS or Engineering students only. Hence, we have to design new topics, and conduct novel teaching activities, including group discussions and debates on controversial topics. I also have to manage five TAs for this class.  To enhance the course, I have acquired a Teaching Development Grant, of HKD 50,000 in 2015. Two renowned guest speakers from have also been invited to share their view on Big Data with students: (1) Dr. Henry Chang, an adjunct associate professor at the Law and Technology Centre at HKU, and (2) Mr. Nicholas Mak, Legal Director, Digital Transformation Microsoft Hong Kong. |
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| **2.** | **SCHOLARSHIP AND RESEARCH Highlight your achievements, and progress toward the objectives for the current review, in scholarship and research.** |
|  | According to the previous PRD review period, the objective is to “Continue to be the leading researcher in his area of research”. The following discusses how the objectives are met. (A) Referred Research Output   I worked on a few areas: (1) query evaluation on uncertain databases; (2) knowledge bases; (3) social network analysis; and (4) crowdsourcing. Since July 2017, we have published 20 research papers, most of which appeared in top journal and conference venues:  Journal Papers (Total 9 papers: PVLDB (4), TKDE (1), TKDD (1), TODS (1), IS (1), KAIS (1)) Note: 1) A “\*” before the author name means he/she is my postdoc. fellow, graduate student, or research assistant. 1. Z. Huang\*, B. Cautis, R. Cheng, and Y. Zheng\*, N. Mamoulis, and J. Yan. Entity-Based Query Recommendation for Long-Tail Queries. In ACM Transactions on Knowledge Discovery from Data (TKDD), 12(6), no. 64, Aug 2018.  2. S. Luo\*, B. Kao, G. Li, J. Hu\*, R. Cheng, and Y. Zheng\*. TOAIN: A Throughput Optimizing Adaptive Index for Answering Dynamic kNN Queries on Road Networks. In Proceedings of the VLDB Endowment (PVLDB), 11(5), pp. 594-606, Jan 2018. Also in the Very Large Databases Conf. (VLDB 2018), Rio De Janeiro, Brazil, Aug 27-31, 2018.  3. Y. Fang\*, X. Xie, X. Zhang, R. Cheng, and Z. Zhang. STEM: a suffix tree-based method forweb data records extraction. In Knowledge and Information Systems (KAIS), 55(2), pp. 305-331, 2018.   4. Y. Fang\*, R. Cheng, S. Luo\*, J. Hu\*, X. Li\*. Effective Community Search over Large Spatial Graphs. In Proceedings of the VLDB Endowment (PVLDB), 10(6), pp. 709-720, Feb 2017. Also presented in the Very Large Databases Conf. (VLDB 2017), Munich, Germany, Aug 28-Sep 1, 2017.  5. Y. Zheng\*, G. Li, Y. Li, C. Shan\*, and R. Cheng\*. Truth Inference in Crowdsourcing: Is the Problem Solved? [Experiments and Analyses]. In Proceedings of the VLDB Endowment (PVLDB), 10(5), pp. 541-552, Jan 2017. To be presented in the Very Large Databases Conf. (VLDB 2017), Munich, Germany, Aug 28-Sep 1, 2017.  6. Y. Zheng\*, G. Li, and R. Cheng\*. DOCS: Domain-Aware Crowdsourcing System. In Proceedings of the VLDB Endowment (PVLDB), 10(4), pp. 361-372, Dec 2016. To be presented in the Very Large Databases Conf. (VLDB 2017), Munich, Germany, Aug 28-Sep 1, 2017.   7. J. Hu\*, X. Wu, R. Cheng, S. Luo\*, and Y. Fang\*. On Minimal Steiner Maximum-Connected Subgraphs. In the Transactions on Knowledge and Data Engineering (IEEE TKDE), 29(11), Nov 2017, pp. 2455-2469.  8. S. Maniu\*, R. Cheng, and P. Senellart. An Indexing Framework for Queries on Probabilistic Graphs. In ACM Transactions on Database Systems (TODS), 42(2), pp. 1-34, June 2017, ISSN: 0362-5915.  9. C. Ren, E. Lo, B. Kao, X. Zhu, R. Cheng, and D. Cheung. Efficient Processing of Shortest Path Queries in Evolving Graph Sequences. In Information Systems (IS), Vol 70, Oct 2017, pp. 18-31.  Conference, Demo, and Workshop Papers (Total 11 papers: ICDE 4, ICDM 1, EDBT 1, CIKM 2, VLDB 1, WISE 1, VLDB workshop 1)   10. J. Hu\*, R. Cheng, K. C. C. Chang, A. Sankar, Y. Fang\*, and B. Y. H. Lam. Discovering Motif Cliques in Large Heterogeneous Information Networks. In the 35th IEEE Intl. Conf. on Data Engineering (IEEE ICDE 2019), Macau SAR, China, Apr 2019.  11. Z. Zhu\*, R. Cheng, L. Do\*, and Z. Huang\*. Evaluating Top-k Meta Path Queries on Large Heterogeneous Information Networks. In the IEEE Intl. Conf. on Data Mining (IEEE ICDM 2018), Singapore, Nov, 2018. Acceptance rate: 20%.  12. Y. Fang\*, R. Cheng, G. Cong, N. Mamoulis, and Y. Li. On Spatial Pattern Matching. In the 34th IEEE Intl. Conf. on Data Engineering (IEEE ICDE 2018), Paris, France, Apr 2018.  13. Y. Fang\*, R. Cheng, J. Wang\*, Budiman\*, G. Cong, and N. Mamoulis. SpaceKey: Exploring Patterns in Spatial Databases (Demo). In the 34th IEEE Intl. Conf. on Data Engineering (IEEE ICDE 2018), Paris, France, Apr 2018.  14. C. Shan\*, N. Mamoulis, G. Li, R. Cheng, Z. Huang\*, and Y. Zheng\*. T-Crowd: Effective Crowdsourcing for Tabula Data. In the 34th IEEE Intl. Conf. on Data Engineering (IEEE ICDE 2018), Paris, France, Apr 2018.  15. X. Li\*, R. Cheng, Y. Fang\*, J. Hu\*, and S. Maniu. Scalable Evaluation of k-NN Queries on Large Uncertain Graphs. In the 21st Intl. Conf. on Extending Database Technology (EDBT 2018), Vienna, Austria, Mar 2018.   16. J. Hu\*, R. Cheng, Z. Huang\*, Y. Fang\*, and S. Luo\*. On Embedding Uncertain Graphs. In the 26th ACM Conf. on Information and Knowledge Management (ACM CIKM 2017), Singapore, Nov 6 – Nov 10, 2017. Acceptance rate: 21% (171/820).  17. S. Luo\*, J. Hu\*, R. Cheng, and B. Kao. SEQ: Example-based Query for Spatial Objects. (Short Paper). In the 26th ACM Conf. on Information and Knowledge Management (ACM CIKM 2017), Singapore, Nov 6 – Nov 10, 2017. Acceptance rate: 30% (119/398).  18. Y. Fang\*, R. Cheng, S. Luo\*, J. Hu\*, and K. Huang\*. C-Explorer: Browsing Communities in Large Graphs, 10(11), pp. 1885-1888, Aug 2017 (Demo). Also presented in the 43rd Intl. Conf. on Very Large Data Bases (VLDB), Munich, Germany, August 2017.   19. Y. Xu\*, R. Cheng, and Y. Zheng\*. Reliable Retrieval of Top-k Tags. In the 18th Intl. Conf. on Web Information Systems Engineering (WISE), Moscow, Russia, October 2017.  20. Y. Fang\* and R. Cheng. On Attributed Community Search. In MATES@VLDB, 2017, pp.1-21.  In Google Scholar (18 September 2017), my total number of citations is 5,502, and H-index is 36.     (B) Research Grants  [External]  1. PI (Co-I: N. Mamoulis) – Query Suggestion for Geo-Textual Data (RGC GRF, Ref: 106150091, 2016-18; transferred from Prof. Mamoulis to me in Jan 2018). Amount: HKD 518,528.  2. PI (Co-I: B. Cautis and S. Maniu) – Discovering and Querying Meta-Graphs in Large Heterogeneous Information Networks (RGC GRF, Ref: 17229116, 2016-18). Amount: HKD 675,647.   During the evaluation period, I have also submitted the following grant proposals which were not funded:  3. PI (Co-I: B. Kao (HKUCS); S.C. Wong, Ryan Wong (HKU Civil); Becky Loo (HKU Geography); Ken Yiu (HKPU Computing); Haibo Hu (HKPU EIE)) – SmartBus: Towards Big-Data-Driven Public Transportation (RGC Collaborative Research Fund 2017/18), shortlisted by RGC to attend a selection interview after passing the preliminary and full proposal round.   4. PI (Co-I: Laks V. S. Lakshmanan, S. C. Wong) – UGE: Effective, Adaptive, and Efficient Mining of Large Uncertain Graphs (RGC GRF, Ref: 17203118, 2018-19), score: 3.5/5.  [Internal]  1. PI – UGE: Effective, Adaptive, and Efficient Mining of Large Uncertain Graphs (Seed Fund for Basic Research for Resubmission of GRF/ECS Proposals), HKU. Ref: 104005125, July-Nov 2018).Amount: HKD 55,330. 2. PI – Using Meta-Structures for Long-Tail Web Query Recommendation (Seed Funding Programme for Basic Research), HKU. Ref: 104005000, 2018-19). Amount: HKD 63,436. 3. PI – Managing Uncertainty of Heterogeneous Big Multimedia Data (Seed Funding Programme for Basic Research), HKU. Ref: 104004572, 2017-18). Amount: HKD 44,320. 4. PI – Managing Quality of Big Traffic Data. HKU 37th Round PDF/RAP Scheme (for recruitment of a postdoctoral researcher in years 2017-18). 5. PI – Managing quality of big traffic data. Central Pool Research Postgraduate Places: 2018 (awarded 1 Type B position). 6. Co-I – Together in a Sustainable Transport Dream at the Two Bay Areas (One Dream, Two Bay Areas), University of California, Davis / University of Hong Kong Collaborations in Research Scheme, Aug 2018 – July 2020). Amount: HKD 200,000.   (B) Awards won by me or students 1. Elected Fellow of Institute of Transport Studies, the University of Hong Kong. 2. Key member, Strategic-oriented Research Theme (SORT) on Artificial Intelligence to Advance Well-Being and Society, HKU. 3. William Mong Visiting Research Fellowship 2018-19, with Prof. Berti-Equille from University of Aix-Marseille, France, on “OGC: On-demand Graph Cleaning”. 4. Mr. Jiafeng Hu, my PhD student who graduated in the summer of 2018, won the Hong Kong and China Gas Company Limited Postgraduate Scholarship 2017-18, after competition with four other outstanding candidates from the department. 5. Yunfan Kang won the Third runner-up prize for the HKU Final-Year Project Competition, on C-Explorer: Browsing Communities in Large Graphs, 2017-18. He was awarded the HKU Undergraduate Research Fellow Programme, for doing a project on community search, supervised by me, in June-August 2017. 6. Rutian Ma was awarded the HKU Undergraduate Research Fellow Programme, for doing a project on meta-path-based embedding, supervised by me, in June-August 2018.  (C) Graduate Student Supervision  I am currently supervising 8 PhD and 2 MPhil students. The following are the students who graduated in the review period: • Yudian Zheng (PhD, HKU, 2013-2017. Thesis title: Managing the Quality of Crowdsourced Databases. Now in Twitter, USA) • Yixiang Fang (PhD, HKU, 2012-2017. Thesis title: Effective and Efficient Community Search over Large Attributed Graphs. Now a postdoc in University of New South Wales (UNSW)).  • Haiqi Sun (MPhil, HKU, 2015-2018. Thesis title: Maximizing Social Influence for the Awareness Threshold Model.) • Jiafeng Hu (PhD, HKU, 2014-2018. Thesis title: Effective and Efficient Algorithms for Large Graph Analysis. Now in Google).(D) Leadership and Mentorship of Junior staff  I recently recruited Dr. Tobias Grubenmann, who gradated in the summer of 2018 from University of Zurich, as my new postdoctoral researcher. He will help me in my research and promote development in web economics. Previously, I collaborated with Dr. Silvia Maniu, my postdoctoral researcher, in 2012 - 2014. His main expertise is in graph and social network management. He helped me to develop my research in new areas. In particular, he defined new topics in social network, and mentored my MPhil students, Mr. Jason Meng and Mr. Siyu Lei, in 2014. Mr. Meng has graduated, with a WWW 2015 paper, and is now a PhD student in Purdue University, while Mr. Lei has graduated in 2015, with a SIGKDD 2015 paper. Silviu assisted me with the organization of the first workshop on database crowdsourcing in VLDB’13, which has been well received. We were guest editors for crowdsourcing in Distributed and Parallel Databases (DAPD) journal. Silviu was a researcher in Huawei Noah’s Ark lab in 2014-15, and he joined Paris SUD university as a lecturer in September 2015. Recently, we published a TODS paper in 2017.  Previously, I have worked with 2 postdoctoral research fellows, Dr. Jiefeng Cheng (Oct 2009 – Aug 2011) and Dr. Sau Dan Lee (Postdoc of Prof. David Cheung). I recruitedDr. Cheng in 2009 through the HKU Engineering Postdoctoral Fellow Award. We published 2 top journal and conference papers, including 1 SIGKDD, and 1 ICDE papers. Dr. Cheng is now working in Huawei Noah’s Ark Lab. I also worked with Dr. Lee on uncertain data mining and social networks, co-authoring 3 journals (IS, TKDE, and KAIS) and 4 conference papers.    Since 2010, I have recruited 10 junior research assistants, who assisted me in different projects. They are undergraduate students from HKU or top universities from mainland China. Some of them were supported through the “Provision of Research Experience for Undergraduate Students” scheme, associated with RGC GRF grants. The goal of this scheme is to encourage undergraduate students to participate in research projects early, and also equip them with advanced research skills. I mentored them and cultivated their interest through these projects.   I was the supervisor of Yunfan Kang and Fung Yuet, through the HKU Undergraduate Research Fellow Programme (URFP) in years 2016 and 2017. The URFP is highly selective and is only awarded to top students in HKUCS. In 2016-17, my FYP project students, Xu Fangyuan and Wu You, won the “Best 50 Final Year Projects” awarded by Hong Kong X-Tech Startup Platform.  (E) Professional Activities I was an Area Chair inIEEE ICDE conference 2017, which is one of the most prestigious international database conferences. I was a member of the Selection Committee for IEEE TKDE Editor-in-Chief in 2016. In 2015, I have joined the Editorial Board for the IEEE Transactions on Knowledge and Data Engineering (TKDE). In 2013-14, I have been selected to be an Area Editor (in crowdsourcing) for the 2nd edition of the Encyclopedia of Database Systems, co-edited by Ling Liu and Tamer Oszu. I have also been a guest editor for GeoInformatica. I have been elected as a member for the SSTD Endowment. Since 2012, I have been selected to be an Editorial Board member for two journals: Distributed and Parallel Databases Journal (DAPD), as well as an Editorial Advisory Board member for the Information Systems (IS). I was the guest editor of a TKDE special issue, which has been successfully published in the September 2010 issue.  I have been the PC member of major database conferences and workshops (e.g., SIGMOD, VLDB, ICDE, CIKM, DASFAA and DEXA). I am also a reviewer of major journals (e.g., TODS, VLDBJ, TKDE, and IS).  I am a senior PC member of APWeb-WAIM 2018, a senior PC member of IEEE BigData 2017 and 2018, a MDM 2019 registration chair, a workshop co-chair of WISE 2017, PC co-chair of APWeb 2015, senior PC member of DASFAA 2015, area chair of CIKM 2014, publicity chair for APWeb 2014, Workshop co-chair of ICDE 2014, and PC co-chair of SSTD 2013. I organized the first workshop on crowdsourcing (DBCrowd) in VLDB 2013. I was a Program Co-chair for the 1st PhD Symposium of PAKDD 2011, a Tutorial Co-chair for DASFAA 2011, a Program Vice Chair for IWKDEWL 2010, and a registration chair in CIKM 2009. I was a member of the Research Center for Ubiquitous Computing (Central Allocation Group Research Projects, RGC, 2006-09, HKBU 1/05C). I am also a member of the StruFus: Infrastructure for Information Fusion, which is a Joint project with U. Skode, HKPU, HKBU, IIT Bombay, U. Wuhan. I also reviewed research proposals for Canada, Netherland and Israel funding agencies.  I gave a number of invited talks in the assessment period, as detailed below. 1. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in Alibaba, Hangzhou, 9th August, 2018.  2. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in Guangdong Big Data Center, Shenzhen, 28th July, 2018. 3. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in 1.5-hour tutorial, PhD school, Australasian Database Conference (ADC), collocated with DASFAA, Gold Coast, 23rd May, 2018. 4. “On Spatial Pattern Matching”, in Australia-China Database Workshop, 20th May, 2018. 5. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in Data Science seminar, Queensland University, 16th May, 2018. 6. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in Alibaba, Hangzhou, 8th January, 2018.  7. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in Jingdong Data Science Lab, Beijing, 13th July, 2017.  8. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in Department of Computer Science, Tsinghua University, 11th July, 2017.  9. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, ICT, Chinese Academy of Science, Beijing, 7th July, 2017. 10. “Big Data Applications”, Trans-disciplinary Research Workshops, Graduate School, University of Hong Kong 2017-18 (6 hours) |
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| **3.** | **KNOWLEDGE EXCHANGE Highlight your achievements, and progress toward the objectives for the current review, in knowledge exchange.** |
|  | The objective is to Maintain the high level of involvement in contributing to the research community via conference organization, editorship, and delivering research talks. I have performed a number of activities to meet this objective.  2) The Graduate School has invited me to organize an extensive workshop about Big Data for graduate students of HKU in December 2017. The 6-hour workshop allows graduate students to experience the development of big data projects.    3) In 2012-13, I as the Vice Chairperson of the ACM Hong Kong Chapter. This is one of the most important IT organizations in Hong Kong, and I am responsible for holding different activities for computer science students in Hong Kong and Macau region. In June 1013, I was the General Chair of the ACM Programming Contest. With the support of HKUCS, we successfully organized the contest in the HKU campus for over 30 programming teams. I helped as a publicity chair for the ACM PG Day in 2013, where PG students from Hong Kong participated in research presentations. I am a member of ACM and IEEE. 4) Yunfan Kang won the Third runner-up prize for the HKU Final-Year Project Competition, on C-Explorer: Browsing Communities in Large Graphs, 2017-18. He was awarded the HKU Undergraduate Research Fellow Programme, for doing a project on community search, supervised by me, in June-August 2017.  5) I was an Area Chair in IEEE ICDE conference 2017, which is one of the most prestigious international database conferences. I am a member of the Selection Committee for IEEE TKDE Editor-in-Chief in 2016. In 2015, I have joined the Editorial Board for the IEEE Transactions on Knowledge and Data Engineering (TKDE). In 2013-14, I have been selected to be an Area Editor (in crowdsourcing) for the 2nd edition of the Encyclopedia of Database Systems, co-edited by Ling Liu and Tamer Oszu. I have also been a guest editor for GeoInformatica. I have been elected as a member for the SSTD Endowment. Since 2012, I have been selected to be an Editorial Board member for two journals: Distributed and Parallel Databases Journal (DAPD), as well as an Editorial Advisory Board member for the Information Systems (IS). I was the guest editor of a TKDE special issue, which has been successfully published in the September 2010 issue.  6) I have been the PC member of major database conferences and workshops (e.g., SIGMOD, VLDB, ICDE, CIKM, DASFAA and DEXA). I am also a reviewer of major journals (e.g., TODS, VLDBJ, TKDE, and IS).  7) I am a senior PC member of APWeb-WAIM 2018, a senior PC member of IEEE BigData 2017 and 2018, and a MDM 2019 registration chair. I am a senior PC member of IEEE BigData 2017, a workshop co-chair of WISE 2017, PC co-chair of APWeb 2015, senior PC member of DASFAA 2015, area chair of CIKM 2014, publicity chair for APWeb 2014, Workshop co-chair of ICDE 2014, and PC co-chair of SSTD 2013. I organized the first workshop on crowdsourcing (DBCrowd) in VLDB 2013. I was a Program Co-chair for the 1st PhD Symposium of PAKDD 2011, a Tutorial Co-chair for DASFAA 2011, a Program Vice Chair for IWKDEWL 2010, and a registration chair in CIKM 2009.  8) I was a member of the Research Center for Ubiquitous Computing (Central Allocation Group Research Projects, RGC, 2006-09, HKBU 1/05C). I am also a member of the StruFus: Infrastructure for Information Fusion, which is a Joint project with U. Skode, HKPU, HKBU, IIT Bombay, U. Wuhan.  9) I reviewed research proposals for Canada, Netherland and Israel funding agencies.  10) I gave a number of invited talks in the assessment period, as detailed below. 1. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in Alibaba, Hangzhou, 9th August, 2018.  2. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in Guangdong Big Data Center, Shenzhen, 28th July, 2018. 3. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in 1.5-hourtutorial, PhD school, Australasian Database Conference (ADC), collocated with DASFAA, Gold Coast, 23rd May, 2018. 4. “On Spatial Pattern Matching”, in Australia-China Database Workshop, 20th May, 2018. 5. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in Data Science seminar, Queensland University, 16th May, 2018. 6. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in Alibaba, Hangzhou, 8th January, 2018.  7. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in Jingdong Data Science Lab, Beijing, 13th July, 2017.  8. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, in Department of Computer Science, Tsinghua University, 11th July, 2017.  9. “Meta Paths and meta Structures: Analyzing Large Heterogeneous Information Networks”, ICT, Chinese Academy of Science, Beijing, 7th July, 2017. 10. “On Attributed Community Search”, in the Department of Computer Science, Harbin Institute of Technology (HIT) Shenzhen Graduate School, 15th December, 2016. 11. “Meta Paths and Meta Structures: Computing Relevance in Large Heterogeneous Information Networks”, in Shenzhen Institute of Advanced Technology (SIAT), Chinese Academy of Sciences, 14th December, 2016. 12. “MetaPaths and Meta Structures: Computing Relevance in Large Heterogeneous Information Networks”, in the Department of Computer Science, Fudan University, 10th September, 2016. 13. “Meta Paths and Meta Structures: Computing Relevance in Large Heterogeneous Information Networks”, in the Department of Computer Science, Macao University, 29th July, 2016. 14. “Meta Paths and Meta Structures: Computing Relevance in Large Heterogeneous Information Networks”, in the Department of Computer Science, City University of Hong Kong, 28th July, 2016. 15. “Meta Paths and Meta Structures: Computing Relevance in Large Heterogeneous Information Networks”, in the Department of Computer Science, INRIA/LIX, Paris, 1st July, 2016. 16. “Big Data Applications”, Trans-disciplinary Research Workshops, Graduate School, University of Hong Kong 2016-17 (6 hours) |
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| **4.** | **SERVICE/ADMINISTRATION Highlight your achievements, and progress toward the objectives for the current review, in service/administration.** |
|  | The objective set from the previous PRD review period is to  Continue the good job at leading the department's DRPC. Revise the Postgrad curricula.  In general, I have achieved the objective, as described below:  (A) Department and Faculty Services 1. I was the Chair of the Departmental Research Postgraduate Committee (DRPC), and a member of the Faculty Higher Degrees Committee (FHDC). I was responsible for handling all academic affairs related to postgraduate students. I organized face-to-face or online interviews for applicants in Beijing, Shanghai, and Hong Kong. These interviews took place in September of 2017 and May 2018.  2. We have defined the core and elective courses, and redesigned the course offer schedule, so that a larger variety of courses can be made available to RPG students. 3. I monitored the maintenance of a portal homepage for RPG recruitment. We have developed an Internet-based system, which allows teachers, RPG applicants, and student helpers to input and review applications.  4. I developed and maintained the Teaching Advisory Committee (TAC). The main role of the TAC is to oversee the progress of a research student and provide advice at different times, or checkpoints. This helps the DRPC to monitor the progress of the students, the quality of supervision, and the students’ expected graduation time. I have also developed an online system to support the TAC, where teachers and students can view and edit the meeting notes. I was responsible for setting up TAC meetings and membership.  5. I am a member of the Departmental Curriculum Development Committee (DCDC). I participated in the review and the improvement of the undergraduate degree curriculum.  (B) External Services  The Graduate School has invited me to organize an extensive workshop about Big Data for graduate students of HKU in December 2017. In 2012-13, I was the Vice Chairperson of the ACM Hong Kong Chapter. This is one of the most important IT organizations in Hong Kong, and I was responsible for holding different activities for computer science students in Hong Kong and Macau region. In June 1013, I was the General Chair of the ACM Programming Contest. With the support of HKUCS, we successfully organized the contest in the HKU campus for over 30 programming teams. I helped as a publicity chair for the ACM PG Day in 2013, where PG students from Hong Kong participated in research presentations. I am a member of ACM and IEEE. Recently, I have been elected as a Fellow of the Institute of Transport Studies of HKU, where I will participate in inter-disciplinary research with experts from transportation. |