
2. A tribute to Puay Tang, Judit Bar-Ilan and Paul Benneworth

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This chapter is a tribute to Puay Tang, Judit Bar-Ilan and Paul Benneworth, three esteemed colleagues who passed away untimely. In this tribute, I commemorate some of the contributions of each of them to the broad field of assessment of the social sciences. Puay Tang contributed in particular to the recognition of the broader impact of the social sciences. Judit Bar-Ilan was well known for her contributions on altmetrics, blogs, and the comparative study of different bibliometric data sources. Paul Benneworth studied intensely the regional role of universities, with particular attention to the arts, humanities and social sciences.

INTRODUCTION

This volume collects the perspectives of prominent thinkers on research evaluation of the social sciences. Despite the breadth of the volume, it is impossible to include all points of views by all imaginable experts. In particular, we are aware of the absence of contributions by three members of the vanguard. It causes great sadness in the community of evaluation scholars that, due to their untimely passing, Puay Tang (December 2, 2018), Judit Bar-Ilan (July 16, 2019) and Paul Benneworth (May 12, 2020) cannot share here their wealth of experience and insights on the evaluation of the social sciences. Just like several contributors to this volume, all three were closely involved in the COST Action ENRESSH (European Network for Research Evaluation in the Social Sciences and Humanities).

We wish to acknowledge the indispensable contributions of Puay, Judit and Paul to the field and to have them in our intellectual midst when discussing a topic that was central to their academic lives. Therefore, in this tribute we reflect on their contributions to thank them for furthering the field.

We realize that such a reflection cannot capture the breadth of their academic work, as all three have contributed to other fields as well. Even regarding the evaluation of the social sciences, this reflection most likely is incomplete. These gaps evidence how valuable and stimulating their own voices were in the academic debate on research evaluation of the social sciences.

PUAY TANG

Comparable to many scholars studying the evaluation of the social sciences, Puay started her academic career working on a different topic. Starting in the mid 1990s, she published widely on intellectual property right issues in the digital era; a topic that she continued to publish on throughout her academic career.

In the early 2000s, Puay broadened her scope and developed an interest in societal impact assessment. Whereas at the time most authors studied the natural sciences, she, Jordi Molas-Gallart and Susie Morrow explored what was then called the ‘non-academic’ impact of

socio-economic research (Molas-Gallart et al., 2000). The inclusion of users and the dominant position of qualitative data in their methodology showed its progressive stance towards impact evaluation. Consequently, together with Tom Sinclair (Tang & Sinclair, 2001), she looked into the attitudes of social scientists to knowledge exploitation and the effect of their attitudes on research dissemination. Puay and Tom recommended ‘the creation of a structure of recognition and reward for exploitation activities’. A recommendation that two decades later still is highly relevant.

These publications served as a stepping stone towards her participation in the influential SIAMPI project, which was funded by the European Commission under the seventh Framework Programme. Within this project, Puay and Jordi Molas-Gallart were responsible for the social sciences case study. Their in-depth study of a Welsh university department resulted in a publication entitled ‘Tracing ‘productive interactions’ to identify social impacts: an example from the social sciences’ (Molas-Gallart & Tang, 2011). It was the first publication to present a SIAMPI case study in detail. The study demonstrates how ‘productive interactions’ help social scientists to give a name to all those activities that fall beyond the teaching, research and administration categories. Arguably, this contributed to the wide application of the SIAMPI approach to the study of the societal impact of the social sciences. The paper’s firm position in the top 5 per cent of most highly cited articles in *Research Evaluation* is but one indication of Puay’s contribution to the field. Scholars in a range of disciplines, including library and information science, education studies, innovation studies and a diversity of management fields, have built upon her works.

Her last publication, published in 2020, presents an approach to evaluate how teams that are engaged in knowledge development and application collaborate (Bone et al., 2020). Diversity is central to the approach, evidencing another topical contribution to the field. Given Puay’s unique and vibrant personality, the title ‘Dare to be different?’ could not have been more apt.

JUDIT BAR-ILAN

Judit received training as a mathematician, but soon after became an information scientist with a keen interest in scientific and scholarly research. She published her first work in the *Proceedings of the Eight Annual ACM Symposium on Principles of Distributed Computing* in 1989 (Bar-Ilan & Beaver, 1989). Her most recent paper, on gender differences in Israeli academia (Cooper et al., 2021), was published in the *Aslib Journal of Information Management* in 2021. As such, her academic career spans four decades and resulted in an impressive number of 130 publications (Leydesdorff & Bornmann, 2020). Judit was not only a productive scholar, her work is of high quality as well. In 2017 the journal *Scientometrics* awarded her with the Derek de Solla Price memorial medal for her invaluable contributions to the studies of science. Her work concentrates on the topics of library and information sciences, informetrics and altmetrics. In this tribute, we focus on those publications that have contributed to advancing the evaluation of the social sciences.

A considerable number of Judit’s contributions aimed to improve evaluative methods by comparing and reflecting on popular practices in the field. Her paper, ‘Which h-index?’ (Bar-Ilan, 2008), which is in the top 20 most-cited *Scientometrics* papers, is a prime example in this respect. The paper shows how for certain fields the h-indexes of authors differ depending on the citation database used. Another example is a collaborative work with Mark Levene and

Ayelet Lin (Bar-Ilan et al., 2007), which also compared the three aforementioned databases. Judit explored how to improve the comparability of these databases in ‘A new methodology for comparing Google Scholar and Scopus’ (Moed et al., 2016).

Judit contributed significantly to the study of altmetrics as well. She founded the *Journal of Altmetrics* in 2018, thereby propelling the maturing of this subfield. Together with Hadas Shema and Mike Thelwell, Judit explored the content of science blogs (Shema et al., 2012). They concluded that ‘the sample’s science blogs share characteristics with other means of scientific discourse. We believe that tracking and recording this communication will become a part of future research evaluation metrics.’ The same author team further demonstrated the potential of altmetrics by showing that blog citations correlate with future journal citations (Shema et al., 2014). Hence, Judit and her co-authors conclude, ‘blog citations can be used as an alternative metric source’. An analysis of Judit’s activity on Twitter showed that her own research too received interest beyond her peers: over half of her followers classify as librarians, journalists, publishers or working in business (Haustein & Peters, 2020).

The International Society for Scientometrics and Informetrics published an interview with Judit in its newsletter when she received the Derek de Solla Price memorial medal. In this interview she said that ‘By collaborating with others, I learn from them (and hopefully they learn from me) and I am exposed to new ideas and new ways of thinking.’ Researchers in the fields of library and information sciences, computer science applications, information systems, education and the general social sciences continue to build upon her work, evidencing the broad scope of her intellectual influence. It is obvious that Judit herself exposed many of us to ‘new ideas and new ways of thinking’.

PAUL BENNEWORTH

Paul studied and specialized in regional development. He developed an interest in the role of universities’ regional development in the early years of his academic career. In 2000 he co-authored the report ‘The Regional Contribution of Higher Education: A Benchmarking Approach to the Evaluation of the Regional Impact of HEI’ (Charles & Benneworth, 2000), which was his first publication on this topic. His most recent publication was the book chapter ‘Universities and place leadership: a question of agency and alignment’. In total, Paul authored over 300 publications, making him one of the most prolific writers many of us have ever met.

Initially Paul focused on entrepreneurship (Benneworth, 2001a), commercialization (Benneworth, 2001b) and spin-off companies (Benneworth & Charles 2005), which are dominated by the natural, biomedical and engineering sciences. The first steps of his quest to understand and demonstrate the societal impact of the social sciences materialized in a conference paper published in 2008. At the 21st Consortium of Higher Education Researchers’ Annual Conference, Paul presented the paper ‘Excellence and third mission: valorisation policies for the humanities, arts and social sciences’ (Benneworth, 2008). Together with Ben Jongbloed, he published his first journal publication on the topic: ‘Who matters to universities? A stakeholder perspective on humanities, arts and social sciences valorisation’ (Benneworth & Jongbloed, 2010). Paul and Ben warned against the detrimental effect of a narrow understanding of impact in economic terms on the social sciences. They also hypothesized that this narrow understanding rooted in the relatively minor influence of typical stakeholders of the social sciences on universities. The publication became one of Paul’s three most influential papers, ranking in

the top 2 per cent of most-cited papers published in the journal *Higher Education*. Together with Ellen Hazelkorn and Magnus Gulbrandsen, in the highly visible HERAVALUE project, he focused on ways to capture the value of the humanities. In a wealth of blogs, of which the influential London School of Economics' 'Impact of the Social Sciences' blog¹ published several, a contribution to *Times Higher Education*, and tweets from his well-known account @heravalue, Paul further advocated the value of the social sciences and the need for evaluation methods that could help to demonstrate it.

Joining forces with Julia Olmos-Peñuela turned out to be fruitful in strengthening the position of the social sciences. Together, often in collaboration with Elena Castro-Martínez, they published seven papers on impact, in particular of the social sciences and humanities, and its evaluation. The creative titles of several of these papers show Paul's much praised eloquence: 'Are "STEM from Mars and SSH from Venus"?: Challenging disciplinary stereotypes of research's social value' (Olmos-Peñuela et al., 2014) and 'Does it take two to tango? Factors related to the ease of societal uptake of scientific knowledge' (Olmos-Peñuela et al., 2016).

Paul's academic works are widely cited in the fields of geography, planning and development, and education. Yet, he strongly believed that his OECD Education Working Paper 'Understanding the Regional Contribution of Higher Education Institutions: A Literature Review', co-authored with Peter Arbo (Arbo & Benneworth, 2007), was his most impactful work. Paul was an avid collaborator, which demonstrates how much his colleagues valued his intellectual contributions. It hardly comes as a surprise that Paul was involved in a considerable number of collaborations at the time of his passing. Many of these collaborations involved early career researchers, as Paul always strove to give them a platform. It is through this new generation of researchers that his ideas will remain with us and will receive the further development that they deserve.

GRATITUDE

By increasing our understanding of the knowledge development and exchange dynamics in the social sciences, advocating the need for discipline-specific assessment approaches and developing and improving evaluation methods, Puay, Judit and Paul have each strengthened the foundations of the evaluation of the social sciences in their unique ways. As a community, we are deeply indebted to them. Puay, Judit and Paul will continue to inspire us for many years to come.

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NOTE

1. Succeeded by the LSE Impact Blog.

REFERENCES

- Arbo, P., & Benneworth, P. (2007). Understanding the Regional Contribution of Higher Education Institutions: A Literature Review. OECD Education Working Papers. <https://doi.org/10.1787/161208155312>
- Bar-Ilan, J. (2008). Which h-index? A comparison of WoS, Scopus and Google Scholar. *Scientometrics*, 74(2), 257–271. <https://doi.org/10.1007/s11192-008-0216-y>
- Bar-Ilan, J., & Beaver, D. (1989). Non-cryptographic fault-tolerant computing in constant number of rounds of interaction. In *Proceedings of the eighth annual ACM Symposium on Principles of distributed computing* (pp. 201–209). ACM. <https://doi.org/10.1145/72981.72995>
- Bar-Ilan, J., Levene, M., & Lin, A. (2007). Some measures for comparing citation databases. *Journal of Informetrics*, 1(1), 26–34. <https://doi.org/10.1016/j.joi.2006.08.001>
- Benneworth, P. (2001a). Academic entrepreneurship and long-term business relationships: the case of the Joyce-Loebl company. *Northern Economic Review*, 32, 96–104. <https://doi.org/10.1080/14632440110110011>
- Benneworth, P. (2001b). Academic entrepreneurship and long-term business relationships: understanding ‘commercialization’ activities. *Enterprise and Innovation Management Studies*, 2(3), 225–237. <https://doi.org/10.1080/14632440110110011>
- Benneworth, P. (2008). Excellence and third mission: valorisation policies for the humanities, arts and social sciences (Conference Presentation). 21st CHER Annual Conference 2008: Excellence and Diversity in Higher Education, Pavia, Italy. https://research.utwente.nl/files/6157447/Down_excellence+in+the.pdf
- Benneworth, P., & Charles, D. (2005). University spin-off policies and economic development in less successful regions: learning from two decades of policy practice. *European Planning Studies*, 13(4), 537–557. <https://doi.org/10.1080/09654310500107175>
- Benneworth, P., & Jongbloed, B. W. (2010). Who matters to universities? A stakeholder perspective on humanities, arts and social sciences valorisation. *Higher Education*, 59(5), 567–588. <https://doi.org/10.1007/s10734-009-9265-2>
- Bone, F., Hopkins, M. M., Ràfols, I., Molas-Gallart, J., Tang, P., Davey, G., & Carr, A. M. (2020). DARE to be different? A novel approach for analysing diversity in collaborative research projects. *Research Evaluation*, 29(3), 300–315. <https://doi.org/10.1093/reseval/rvaa006>
- Charles, D., & Benneworth, P. (2000). The Regional Contribution of Higher Education: A Benchmarking Approach to the Evaluation of the Regional Impact of a HEI. University of Newcastle. <http://research.ncl.ac.uk/unireg/hefce/draft-tool.doc>
- Cooper, T., Aharony, N., & Bar-Ilan, J. (2021). Gender differences in the Israeli academia: a bibliometric analysis of different disciplines. *Aslib Journal of Information Management*. 73(2), 160–179. <https://doi.org/10.1108/AJIM-05-2020-0170>
- Haustein, S., & Peters, I. (2020). Commemorating Judit Bar-Ilan from bibliometric and altmetric perspectives. *Scientometrics*, 123, 1211–1224. <https://doi.org/10.1007/s11192-020-03448-y>
- Leydesdorff, L., & Bornmann, L. (2020). ‘Interdisciplinarity’ and ‘synergy’ in the oeuvre of Judit Bar-Ilan. *Scientometrics*, 123, 1247–1260. <https://doi.org/10.1007/s11192-020-03451-3>
- Moed, H. F., Bar-Ilan, J., & Halevi, G. (2016). A new methodology for comparing Google Scholar and Scopus. *Journal of Informetrics*, 10(2), 533–551. <https://doi.org/10.1016/j.joi.2016.04.017>
- Molas-Gallart, J., & Tang, P. (2011). Tracing ‘productive interactions’ to identify social impacts: an example from the social sciences. *Research Evaluation*, 20(3), 219–226. <https://doi.org/10.3152/095820211X12941371876706>
- Molas-Gallart, J., Tang, P., & Morrow, S. (2000). Assessing the non-academic impact of grant-funded socio-economic research: results from a pilot study. *Research Evaluation*, 9(3), 171–182. <https://doi.org/10.3152/147154400781777269>
- Olmos-Peñuela, J., Benneworth, P., & Castro-Martínez, E. (2014). Are ‘STEM from Mars and SSH from Venus’?: challenging disciplinary stereotypes of research’s social value. *Science and Public Policy*, 41(3), 384–400. <https://doi.org/10.1093/scipol/sct071>
- Olmos-Peñuela, J., Benneworth, P., & Castro-Martínez, E. (2016). Does it take two to tango? Factors related to the ease of societal uptake of scientific knowledge. *Science and Public Policy*, 43(6), 751–762. <https://doi.org/10.1093/scipol/scw016>

- Shema, H., Bar-Ilan, J., & Thelwall, M. (2012). Research blogs and the discussion of scholarly information. *PLOS One*, 7(5), Article e35869. <https://doi.org/10.1371/journal.pone.0035869>
- Shema, H., Bar-Ilan, J., & Thelwall, M. (2014). Do blog citations correlate with a higher number of future citations? Research blogs as a potential source for alternative metrics. *Journal of the Association for Information Science and Technology*, 65(5), 1018–1027. <https://doi.org/https://doi.org/10.1002/asi.23037>
- Tang, P., & Sinclair, T. (2001). Exploitation practice in social science research. *Science and Public Policy*, 28(2), 131–137. <https://doi.org/10.3152/147154301781781598>