Performance Indicators for ICT Academics

Background

At the 2012 ACDICT ACM, Professor Ron Weber, Dean of ICT at Monash, tabled a paper requesting ACDICT to undertake a study and publish benchmarks of what should be 'expected' from an ICT academic. Ron believed it would be useful for supporting promotion applications. The request was discussed at the ACM and no clear consensus has emerged. Professor Leon Sterling agreed to develop a paper for the 2013 ACM, which has been deferred to this year. Leon asked both CORE and ACPHIS for input, but nothing substantive has been forthcoming.

Preamble about Metrics

We are aware that all metrics are flawed, and should individual records should always be evaluated in context. Anomalous records are not necessarily good or bad, they just need an explanation. Records should be interpreted relative to opportunity (e.g., years since PhD, career interruptions, etc.). Further, the metrics correspond primarily to established areas of computing. New areas always need establishment, for example new areas will not have A* journals. It should also be noted that the research profiles for the various sub-areas of computer science differ (e.g., some rely more heavily on conference publications while others rely more on journals).

Observations

Publications in the top conferences in Computer Science are prestigious and despite pressures to only publish in journals, CS academics continue to publish in top conference venues. ACDICT supports publication in conference and to have conference publications count as output.

Google Scholar is a useful source of citation data for Computer Science, because it includes many conferences that are not included in other citation indices such as Scopus. However, we note that it includes self-citations and citations to unrefereed material that inflate the citation counts. It is important never to compare citation metrics from different sources.

People claim the status of publication venues in ARC applications and in promotion applications. The existence of CORE rankings for journals and conferences is an externally validated reference point, despite any reservations people may have on ranking systems.

Solely using venue as a source of quality for publication is flawed.

While best paper awards are good, they are not the most significant, and nothing should be read into not having an award.

Being on the program committee for an A-ranked conference is a sign of standing in the community, even more so for an A* conference. Being on the program committee is not necessarily a sign of standing in the field for B-ranked conferences, and service for C-ranked conferences should be disregarded.

Being an invited speaker for an A or A* ranked conference is a source of prestige.

Being an invited speaker for a B or C ranked conference is a source of networking capability and can be a service to the community. Note that for areas that may have no A/A* ranked conferences, this may well be significant.

An h-index below 10 is poor for a Computer Science academic, having an h-index above 20 is very good for a Computer Science academic.

A guideline used at one university is for an increase of at least 1 in the h-index for each active research year after a person obtained their PhD.

Awards for teaching and research from organisations with clear and rigorous selection processes, such as CORE, are significant and can be used as prestige factors.

Leon Sterling

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