PENNINGTON CORNER



n February 21, 2009, I attended In order to get some perspective of accomplishments this past year, I thought in

the dedication of Carril Court at Princeton University, to honor the great Hall-of-Fame basketball coach Peter Carril.* He has

been an influential force in my life, and to see him reluctantly accept this honor brings a rush of inspiration and awareness of the importance of the message in this column. The data suggest that ECS publications are at an all time high, but Coach Carril reminded me that (publication) metrics don't address our higher mission or our responsibility as a steward of the science.

The publication metrics do indicate that ECS had a great year in 2008, and there are many people to thank for their hard work and commitment to doing things the right way. In the ECS vernacular, the right way means to insure the quality and reliability of the publications, as well as the broad distribution of the content. For a publisher in the digital age, satisfying these objectives is no small accomplishment and something often unappreciated or at least not well understood by scientists and engineers who are busy with their work. Some of the commercial publishers in our scientific field have placed a low value on these objectives, opting to invest in shortening lag times, inflating citations, and creating unbreakable subscription bundles; all for the purpose of improving profit margins. The end result is a proliferation of high cost and low quality technical publications that impedes the advancement of our science.

ECS's most important objectives are aimed at continuously improving the quality and reliability of our publications. These objectives are achieved through excellent author submissions, assured through the ECS editorial boards, and maintained through the reviewers, committee members, and staff. What proliferates throughout the ECS publishing system is a lot of hard working people trying to advance the science the right way. You can review some of their success in the side bar accompanying this column (see page 8). Experts acknowledge that it is difficult to accurately measure the success of peer-reviewed journals or identify the bestin-field; however, I would like to make two important observations about the metrics: (1.) collectively the ECS rankings are excellent, and suggest that we are ahead of the pack with respect to our ability to disseminate the content, and (2.) the Journal of The Electrochemical Society (JES) is number one in the Eigenfactor[™] ranking, which is becoming an increasingly important standard.

In order to get some perspective on our accomplishments this past year, I thought it would be interesting to compare some broader 2008 journals metrics against similar data from a decade ago. In 2008, ECS published 1,550 manuscripts in JES with a lag time of 18 weeks, versus 766 manuscripts and a 36-week lag time in the year 1999. The figures for Electrochemical and Solid-State Letters (ESL) were 711 manuscripts with a lag time of 12.9 weeks in 2008, and 221 manuscripts with a lag time of 13.4 weeks in the year 1999. For the two journals, that means that, in ten years, the average number of published manuscripts increased by 129% and the average lag time decreased by 37.5%. Electrochemistry has been an active discipline and the reputation of our journals has been broadening, so we would expect to publish a greater volume of manuscripts. While it has been challenging to simultaneously handle the increase in volume and reduction in lag time, it has been rewarding to see the growth and improvements.

Our mission to advance the science through dissemination of knowledge involves a fairly simple premise but represents a very difficult task. It requires that a large group of people on our publications team work hard everyday, so we can publish the increasing volume of content the right way, without resorting to the profit-driven temptations that have derailed many commercial publications. Pete Carril's comments a few nights ago were a reminder that these core values must be maintained by a professional society like ECS if we are going to succeed in our mission.

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Roque J. Calvo ECS Executive Director

*Roque Calvo's father was Pete Carril's best friend from Bethlehem, PA, where they grew up as the sons of Spanish immigrants working for the steel company. The values that influenced Carril's brilliant career were established by the work ethic and integrity of his Bethlehem roots. Their formative lesson was "tienes que complir con tu obligacion," which meant to them, "do things the right way." Carril closed his speech on February 21 with those words. (continued from previous page)

ECS Journals and Their Impact Metrics and Ranking

All numbers below are from the latest available data, from 2007. The "ranking" given below refers to the place of the ECS journals among all journals in the category of "Electrochemistry."

JES

ESL

Eigenfactor™ Metrics

Eigenfactor Score	0.08363	0.02998
Rank	1	8
Article Influence [™] Score	0.835	0.792
Rank	4	7
Thomson JCR [®] Data		
Total Cites	37,149 5	,491
Rank	1	9
Cited Half-Life	9.2	3.9
Rank	2	18
Articles	990	398
Rank	3	7
Immediacy Index	0.486	0.397
Rank	5	10
JCR 5-Year Impact Factor	2.758	2.353
Rank	7	10
JCR Impact Factor	2.483	2.109
Rank	10	11

The Eigenfactor was developed borrowing methods from network theory, and it ranks the influence of journals much as Google's "PageRank" algorithm ranks the influence of Web pages. A journal is considered influential if its articles are heavily cited within five years of publication by other influential journals. The Eigenfactor team says the metric measures a journal's importance to the scientific community. In many research areas, articles are not frequently cited until several years after publication. Therefore, measures that look at citations in only the first two years after publication-as the Thomson Reuters Journal Citation Reports (JCR) impact factor does-can be misleading. The Eigenfactor score and the Article Influence score are calculated based on the citations received over a five year period. (See http://www.eigenfactor.org.)

Further Reading

A. L. Rovner, "The Import of Impact," *Chemical & Engineering News*, **86**, 39 (2008), http://pubs.acs. org/cen/science/86/8621sci1.html — This article provides a very good look at the three major "impact" metrics in use today, and discusses how they are formulated as well as the pros and cons of each.