Editorial

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Water Management forms part of the *Proceedings of the Institution of Civil Engineers*. While many other journals publish scientific and technical articles by engineers and engineering researchers, the proceedings of a professional society have the purpose of recording and communicating issues of particular concern to its broad membership. As the introductory comments to the *Proceedings* in the ICE Virtual Library state, they 'provide a unique forum for dialogue between the world of research and the world of practice'.

Are the readers of *Water Management* effectively using the forum it provides for the dialogue intended? Concerns have recently been expressed within the Editorial Advisory Panel about the lack of written discussion of papers in the journal. It would seem that over the years the journal has become less of a forum for dialogue and more of a repository for papers by academics, who constitute a rather small part of the institution's membership. Whether or not this is true should be indicated by changes in the balance of contributions from the research and practitioner communities and, especially, by the level of discussion stimulated by the contributions. I have used snapshots of the situations in the early 1970s, early 1990s and in 2009 to examine this perception.

In 1972 the *ICE Proceedings* were divided into two parts, Part 1: Design and Construction and Part 2: Research and Theory. In the early 1990s, Part 2 began fragmenting into specialist-area journals and the *ICE Proceedings* now comprise 16 specialist-area journals and the more general *Civil Engineering*. Comparison of the contents of Part 2 with its descendants *Water Maritime & Energy* and then *Water Management* shows that the percentage ratios of researcher to practitioner authors were 79:21 in 1973, 60:40 in 1993, and 84:16 in 2009. In the same years the proportions of total journal pages allocated to discussion – including reported 'informal discussion' in the earlier years – were 28%, 8% and 0.5%. The 2009 value represents just a single written discussion in that year, but this is not unrepresentative – there were only two discussions during the preceding three years. A comparison of the pre-split *ICE Proceedings* (in 1970) with all 2009 *Proceedings* journals considered together shows a change in the ratio of researcher to practitioner authors from 60:40 to 72:28 and a reduction in discussion content from 25% to 1.0%. It appears therefore that the *Proceedings* as a whole have

become more dominated by academic contributions over the years, and that dialogue through discussion has all but fallen away, certainly in most of the specialist-area journals.

The trend is not unique to ICE. The American Society of Civil Engineers' *Journal of the Hydraulics Division*, now the *Journal of Hydraulic Engineering*, is a counterpart of the ICE's *Water Management*, and it is therefore instructive to compare trends in these two journals. The ratio of researcher to practitioner authorship in the *Journal of Hydraulic Engineering* was 81:19 in 1973 and increased to 94:6 in 2009, so it has always been even more dominated by academic contributions than *Water Management*, and has become increasingly so. However, although written discussion (at 11% and much less than for Part 2 in 1973) has also declined considerably, it still constitutes a fairly meaningful proportion of the content at 5% in 2009.

The reasons for the relative decline in contributions to the *ICE Proceedings* by practising engineers and the more significant decline in written discussion by both researchers and practising engineers are difficult to discern. Certainly their reward systems do not encourage academics to engage in discussion – a new paper based on a potential discussion issue will bring more personal credit than a written discussion. There is also little incentive for engineering academics to direct their research towards immediate practical applications. While citation of their work by other researchers is monitored and rewarded, there is no comparable acknowledgement of the impact of research products on engineering practice. The contribution to discussion by practising engineers was always considerable – and vigorous – in the past. They contributed 73% of the discussion in the integrated *Proceedings* in 1970 and 48% in Part 2 in 1973. Discussion content declined from 25% of journal pages in the 1970 *Proceedings* to just 1.0% in all *Proceedings* and 2.8% in *Civil Engineering* in 2009. Do practising engineers no longer accept research outputs without question, or are they now just less concerned with them? The ratio of researcher to practitioner authorship of 29:71 and the relatively high discussion content in *Civil Engineering* suggest that practising engineers rely mostly on this journal for dialogue. Whatever the reasons, the lack of contribution by practising engineers to advancing the specialist technical base of civil engineering and the lack of critique of proposed advances indicate a widening gap

between the research and practising communities, which is surely a loss to both.

The content of this issue of *Water Management* is fairly typical, with paper topics representing a wide spectrum of relevant interests. Two papers (Blake, 2010; Mansell and Wang, 2010) present applications of hydrological modelling aimed at advancing the practice of urban water management. The other three papers deal with different aspects of river hydraulics: Liang (2010) and Wang *et al.* (2010) present advances in computational modelling of river flows, while Sun *et al.* (2010) describe an application of a potentially useful method for estimating discharge. There are also reviews of two books, one of general historical interest to all engineers and one directed at practitioners and students. But the issue is also typical in respect of the concerns raised in this editorial: the ratio of researcher to practitioner authors is 100:0 and there is no discussion of previous papers. The authors have contributed their side of the dialogue in this issue and the material presented in the different papers should be of interest to both practitioners and researchers. I challenge you, the reader, to respond to the invitation printed at the end of each paper and submit your comments, further contributions and criticisms through written discussion.

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