EDITORIAL

PLOS Water: A bridge and a voice for the water sectors

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It is hard to overstate the importance of fresh water to health and well-being. Water underpins the functioning of ecosystems upon which all life depends. It supports human development through its role in food production, manufacturing, energy generation, recreation, cultural and spiritual practices, among other pursuits. Our vision for *PLOS Water* is to bridge the diverse scholarly and practice communities engaging with these and other dimensions of freshwater management and use. More than simply a venue for reporting science, we see the journal as an active voice for the broader community, one that can influence and shape the future use of water globally.

That voice is urgently needed. Over the past century, use of fresh water increased by an estimated 600% as the earth's population has grown, urbanized, and become wealthier [1]. The timing, intensity and distribution of precipitation also began to shift as a result of climate change during this period [2]. Increased demand, paired with increasing uncertainty of supply, has had predictable and often devastating effects for those with relatively less political power, and for fragile aquatic ecosystems. More than 2 billion people still lack access to a safe, convenient source of drinking water, despite substantial reduction in global poverty over the past several decades [3]. Less than a quarter of the world's large rivers flow uninterrupted to the ocean, and more than a third of wetlands have been lost since 1970 [4, 5].

Such impacts often emerge as unintended consequences of the complex systems of relationships that shape, and are shaped by, the management and use of fresh water. For example, whereas acute water scarcity is experienced at the local or watershed scale, many determinants of water availability and quality operate at regional or even global scales, in sectors ranging from energy and transport to manufacturing and international trade [6, 7]. Indeed, even well-intentioned efforts to advance equity, efficiency, resilience, or ecosystem health will have unforeseen effects [8, 9]. If all our efforts incorporated this idea we would be better placed to adapt and mitigate responses, across all scales and sectors.

Growing appreciation of the complexity inherent in freshwater systems can be seen both in academic literature and in practice, such as with the emergence of scholarship on social-ecological systems and the development of adaptive management approaches [10, 11]. Nevertheless, it is still the case that both the study and the management of fresh water is organized into specialized subgroups that have relatively limited interaction. Our siloes are established through training and education in disciplinary communities, where strong incentives exist to become well-known within a narrowly defined area. Disciplines themselves create their own political economy: methodologies are not just preferred but prioritized, and technical languages strengthen internal communication while impeding broader engagement.

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How did we reach a state where the water sub-sectors are so disconnected that they need to be reunited? For thousands of years, civilizations have been founded around water. As freshwater uses expanded to include agricultural, commercial and industrial activities, the emergence of towns and cities allowed human communities to prosper in new ways. Certain kinds of technical knowledge about water became more specialized and highly sought after, while some (mainly) gendered, expressive and cultural knowledges were marginalized or, worse, lost. The pursuit of water knowledges narrowed, diverged and drifted apart.

Building bridges across this fragmented landscape of freshwater scholarship and practice is a key motivation for *PLOS Water*. Another is helping to confront the ways in which some freshwater knowledges have been marginalized by the hegemony of science and technology. Somehow, this must be done without denigrating the contributions of those fields to important societal agendas. A central part of this effort will be fostering the participation of researchers from historically underrepresented geographies, institutions, disciplinary communities, racial and ethnolinguistic groups, cultures, and perspectives in academic publishing on water. The Open Science focus at PLOS further supports our equity objectives by ensuring the articles we publish, along with their underlying data, code, and methods, are openly available to anyone who wants them.

It is a humbling exercise to assume leadership roles in such an ambitious enterprise. Realizing our vision for the journal as an inclusive and interdisciplinary forum requires attention to the needs and perspectives of multiple constituencies, including under-represented scholars, early career researchers, community leaders and thinkers, and those who have already been successful in academic publishing. To avoid reinforcing existing biases in the academy, we need to facilitate a communicative process that does as much challenging as it does conforming in the publishing world. We welcome the roles of our Section Editors in this quest, and we thank them for their guidance and contributions thus far. We are also grateful for the efforts of our Academic Editors in maintaining the rigor and quality of published work.

We invite everyone with an interest in freshwater scholarship to join us in building a community that catalyzes new kinds of conversations and values a diversity of perspectives. We need your support and advice to realize our goals for inclusion and interdisciplinarity while managing the practicalities of academic publishing. Together, we look forward to creating a new and exciting dialogue that builds upon the already excellent submit-review-publish axis that is PLOS, for a subject matter that is dear to our hearts and minds: water.

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