



Some thoughts on a community science agenda for hydrology: Lessons learned from PUB and CUAHSI

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Exploration of some of the fundamental puzzles and paradoxes in hydrology requires sustained, painstaking work by individual hydrologists. However, it is recognized that such work will benefit from the presence of a supportive infrastructure, which helps to multiply and link the work of individual hydrologists. This increasing recognition is manifested in a number of ongoing community initiatives such as PUB and CUAHSI that are attempting to set up new infrastructure and/or organization that is focused on new observations, new measurement technologies and/or advances in modeling capability. Given that breakthroughs occur when small groups of highly motivated scientists are driven by acute challenges encountered in real problem-solving situations and/or given the freedom and encouragement to experiment with new ideas, what form should community efforts take? Some issues to consider are: collaboration vs competition, targeted problem solving vs radical, out-of-the-box thinking, integration of existing data, models and theories vs asking fundamental questions and/or solving nature's puzzles. Should the progression of ideas and discoveries be predetermined or should they be adaptive and flexible? Do we assemble "theorists" who can come up with interpretations of existing observations in terms of new concepts or theories, or "technologists" who can use the power of technology to observe and map the world and use modern tools to analyze and visualize and in this way discover the underlying patterns? In this talk I will draw on the experience gained by my past (and current) involvement in these initiatives to seek answers to these questions.