Open Knowledge Environments for Promoting the United Nations' Millennium Development Goals and a Potential Role for CODATA¹

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There are now multiple paths being taken to make the transition from restricted to open access and use of scientific data and information. The evolutionary social systems have begun to respond to the opportunities made possible by the revolutionary technologies embodied in global digital networks. A gradual, but highly significant and far-reaching restructuring of scientific communication in public research is thus taking place.

This presentation will review some of these institutional developments and their rationale. It will describe an emerging model of online open knowledge environments (OKEs) that integrates these disparate institutional developments in a holistic thematic hub of interactive knowledge production, dissemination and use, and discuss how such OKEs can further the implementation of the United Nations' Millennium Development Goals. It will conclude with a rationale for why CODATA should become more involved in such activities and provide some suggestions for how it can do that.

¹ This presentation is based on: Paul F. Uhlir, "The emerging role of open repositories for scientific literature as a fundamental component of the public research infrastructure," in *Open Access: Open Problems*. G. Sica (ed.), Polimetrica, Torino, Italy; and on Jerome H. Reichman, Tom Dedeurwaerdere, and Paul F. Uhlir, *Designing Microbial Research Commons: Global Intellectual Property Strategies for Access and Use of Essential Public Knowledge Assets*, Yale University Press (publication pending, 2011). The views expressed here are those of the author and not necessarily those of the U.S. National Research Council or the National Academy of Sciences.