

EDITORIAL

In memory of Clive L. Dym

DAVID C. BROWN, YAN JIN, AND WILLIAM P. BIRMINGHAM

The current and past Editors of *AI EDAM* note with sadness the passing on May 3, 2016, of Clive Dym, the Founding Editor of this Journal.

Information about Clive's accomplishments can be found at two web locations (<https://www.hmc.edu/remembering-clive-dym/clive-dym-obituary/> and http://nac.designsociety.org/en/article/3/in_memoriam_clive_dym_1942-2016), so we will not repeat the details of a lifetime of significant contributions to design theory, practice, and pedagogy.

Clive's first issue of *AI EDAM* was February 1, 1987, and he almost lived long enough to see the 30th anniversary of his Journal. He wrote a "Happy 20th Birthday, *AI EDAM*" editorial in 2007. He was thrilled when it reached its 25th year, but slightly surprised to see it last that long. He was Editor in Chief from 1987 until 1996.

Clive kept an interest in how the Journal was progressing after his 10 years as Editor. For a while he was regularly consulted about key concerns. That eased off gradually over the years, as he left it to his successors to carry the torch, although he always had an opinion about potential new editors. He was enthusiastic about the Journal having significantly more special issues, so that it could consistently provide clusters of papers about cutting edge topics.

David C. Brown, the Journal's third editor, remembers that Clive sought him out to discuss the founding of the Journal, because he was concerned about its potential impact and survival. D.C.B. ended up being appointed as Book Review Editor; but it was decided after awhile that this was not sustainable, and reviews were eventually dropped from the Journal. Clive selected a distinguished set of people to serve as the inaugural Editorial Board and convinced a publisher that the concept was both viable and important.

Before starting the Journal, Clive had been actively involved with the ground-breaking PRIDE design expert system at Xerox and was enthusiastic about the potential impact of artificial intelligence (AI) on engineering, and engineering design in particular. He coauthored an influential book in 1991 on knowledge-based systems in engineering, continuing to demonstrate his enthusiasm for AI applications. His book still remarkably receives a few citations every year. In 1991 he published with Yan Jin, the current Editor in Chief, a paper about multidisciplinary design decision making using AI techniques. His publishing record is distinguished by his

connections with many coauthors across a variety of topics. For example, his most cited paper on engineering design pedagogy has four coauthors.

In 1994 he authored the monograph *Engineering Design: A Synthesis of Views* that attempted to show how AI's reasoning and representation methods applied quite naturally to defining design and to modeling designing. This marked a strong break from the pervasive "design as analysis" point of view. Almost 20 years later, at the time of his retirement, he was concerned that, although the fundamental ideas in the book were still true and relevant, AI had moved on. As a consequence he enlisted the help of D.C.B. to update the book to include explicit descriptions of relevant modern AI-based representations and reasoning, layering the new material over the text of the original. In retirement he kept threatening to update all of his other books!

William P. Birmingham, the Journal's second editor, remembers that just prior to Clive turning over the editorship, he expressed deep interest in the Journal's direction. They had many interesting and fruitful discussions about unfolding events in the field and the direction of the Journal. Handing over the Journal to someone new was difficult, because Clive had spent considerable effort developing it. He wanted the Journal to continue its editorial direction while still engaging new areas. Of course, he also wanted the Journal to maintain high academic standards.

Throughout his years of being Editor, W.P.B. relied on Clive for advice. That advice transcended the Journal. As a young faculty member trying to get a career started, he enjoyed Clive's wisdom about everything from research to teaching to navigating academe. W.P.B. fondly remembers long phone calls with Clive and getting together at conferences.

Y.J., the Journal's fourth editor, stresses Clive's community building and mentoring role. Clive envisioned that there was an intellectual framework of design that could be articulated and modeled, and therefore taught and researched. This conviction led him to establish a journal that has played a critical role in providing a forum for and developing a community of those who had similar thoughts about the utility of AI in design and analysis.

In 1997, Clive organized the first biannual Mudd Design Workshop. Through eight workshops over a span of almost two decades, Clive built a substantial community of faculty

interested in design education, making a significant contribution to advancing the quality of both research and practice.

With his broad career coverage, from structural mechanics to AI, and from design to engineering education, Clive was a mentor and role model for many young researchers. Y.J. was heavily influenced by Clive's monograph *Engineering Design: A Synthesis of Views* and was inspired to focus on AI and design related research himself.

We note that the general goals and guidelines for the Journal have changed little since its inception. Clive wrote the following in his 1997 "Farewell Message" when stepping down as Editor and handing the position over to W.P.B.:

From the beginning we intended that *AI EDAM* be "an archival research journal that is intended to reach two audiences: engineers and designers who see AI technologies as powerful means for solving difficult engineering problems; and researchers in AI and computer science who are interested in applications of AI and in the theoretical issues that arise from such applications."

Although the link to the originator is now broken, the current and past Editors in Chief are committed to continuing to strive for these goals. The Journal will continue to be of the highest quality and be on the cutting edge, while maintaining the vision that Clive Dym had in the early 1980s. He will be missed.