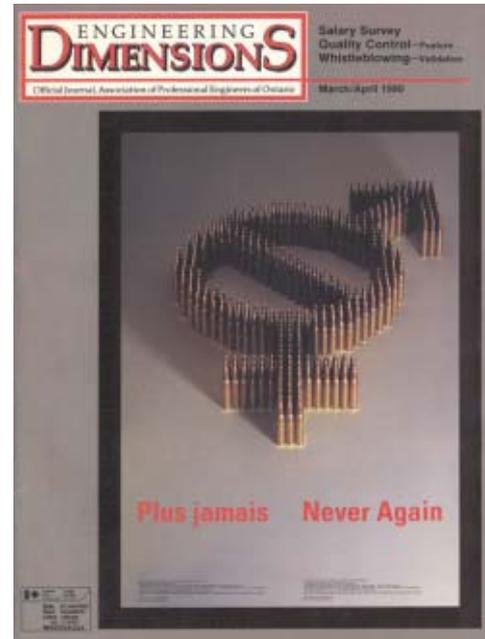
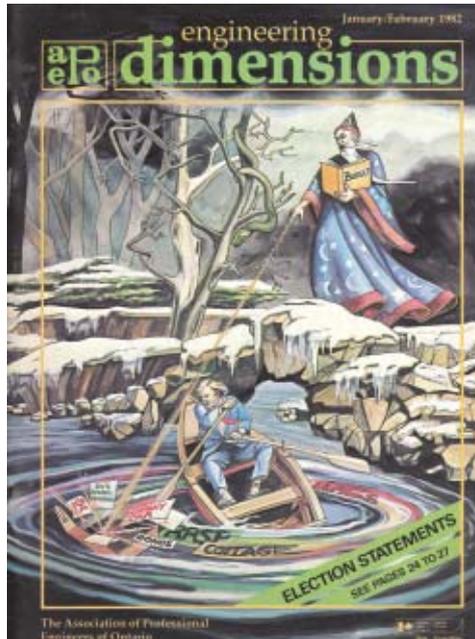


Born out of a desire to enhance the communications link between PEO and its members, *Engineering Dimensions* continues to evolve as a vehicle to celebrate and call to account the engineering profession. Here's a look at some of the major themes that have filled the magazine's pages over the last quarter century.

By Michael Mastromatteo



25 YEARS ON T

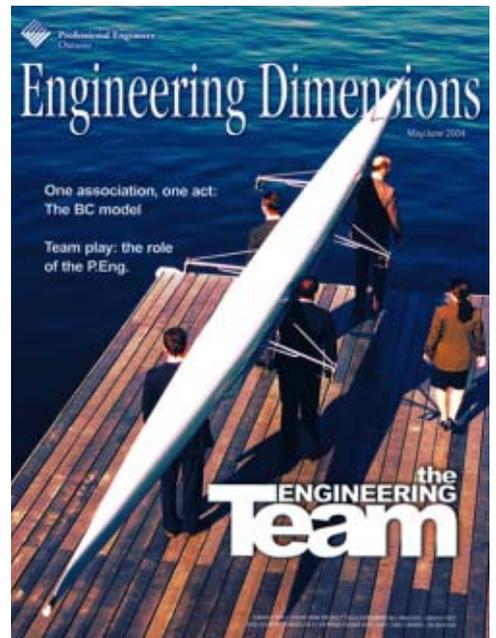
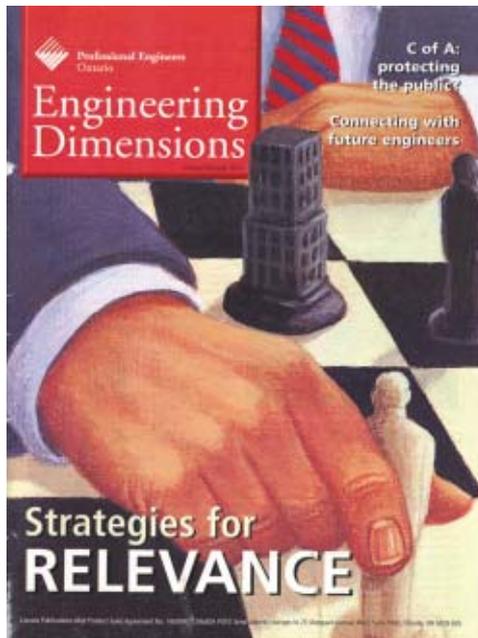
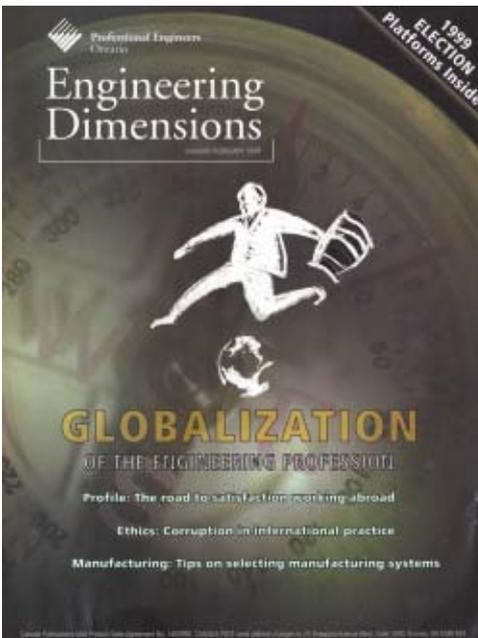
A review of the editorial themes featured in the pages of *Engineering Dimensions* over the last 25 years reflects the usual ebb and flow of priority, issue, incident, response and evolution that has characterized the engineering profession in Ontario since the creation of its regulatory body. But with the launch of the new magazine in 1980 (see “Leap of faith: the birth of *Engineering Dimensions*,” p. 61), a major communications channel between the regulator and its membership was created.

The inaugural issue of the *Dimensions* magazine was May 1980. In its most recent previous incarnation, the association's publication had been a yellow-page insert known as *Ontario Digest* and was carried within a commercial publication called *Engineering Digest*. In 1981, the magazine was re-named *Engineering Dimensions*, and a separate insert, edited by the then Department of Legal and Professional Affairs and notable for its distinctive blue pages, called *Gazette*, debuted in 1982. From 1980 until today, *Engineering Dimensions* has evolved from a predominantly black and white, text-heavy entity, to today's full-colour, graphically sophisticated publication, which often devotes entire pages to an appropriate image or visual theme.

Yet despite changing personnel, a continually updated “look,” and the addition of new departments, over the last two-and-a-half decades the magazine has invariably served up a number of recurring topics that, whether individually, or in a broader context, have shone a spotlight on a profession's circumstances at a particular moment in time. The magazine has also made efforts to determine which issues are important to engineering practitioners, and what information shortcomings might be addressed by a timely article, analysis or review. In addition, the magazine has made it a priority to be “by, for and about” professional engineers by soliciting PEngs to write features, case studies and opinion columns, and to offer comment based on their first-hand experiences with the issues under discussion.

More recently, the magazine has been supplemented by PEO's corporate website, which not only archives recent volumes of *Engineering Dimensions*, but also publishes additional information on the subjects of the magazine's articles.

Coverage during the 1980 to 1995 period occasionally reflected the dichotomy between regulatory and practice issues and advocacy and member services information.



THE ENGINEERING BEAT

In the January/February 1991 issue, for example, an Ottawa Chapter workshop examining the advocacy versus licensing role was covered. A key point raised in the workshop was that “advocates shouldn’t be licensing bodies—an alternative association should do it”—words foreshadowing the creation of the Ontario Society of Professional Engineers (OSPE) in 2000.

With development of *The Link* in 1996 to focus on providing association information and news from chapter events, and the magazine’s changed editorial objectives post-OSPE, member services is a subject that’s largely disappeared from *Engineering Dimensions*—although the route to a separate advocacy and services body for the Ontario profession consumed many pages between 1995 and 2000.

Call to action

As a forum of news and opinion, the magazine has also captured in its pages what might be considered “watershed” events for the profession, which have often played a major role in driving change, evolution, and new ways of thinking and acting. Perhaps no greater example of this is *Engineering Dimensions*’ treatment of the shooting of

14 women, 12 of them engineering students, at Montreal’s École Polytechnique in December 1989. As a result of that horrific incident, the profession has paid more attention to the climate for female engineers and engineering students and *Engineering Dimensions* has charted that progress via story, feature and photograph.

Which is not to suggest that gender issues in engineering were not on the editorial agen-

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da prior to 1989; earlier issues of *Engineering Dimensions* document an early awareness of the changing face of the profession.

Breaking news

One of the most common subjects for coverage over the last 25 years concerns the sudden cancellation of the Avro Arrow program and its significance to engineers. The fact that this all-Canadian aviation marvel was shut down for purely political purposes was an *Engineering Dimensions* scoop that made

the front page of *The Globe and Mail*—and appears to rankle engineers to this day. In the September/October 1988 issue—30 years after federal government cancellation of the Avro Arrow-CF-105 program—*Engineering Dimensions* quoted from a then recently declassified U.S. Deputy Secretary of Defense memorandum, dated June 1, 1960, that made it clear the Arrow was sacrificed in trade discussions with the United States:

“...in July 1958, Canada took the following actions with the understanding that her defense industry depended largely upon the U.S. channelling defense business into Canada; cancelled the CF-105 and related systems contracts; decided to make maximum use of U.S. developed weapons ...,” the magazine reported.

“Whatever the reasons for cancellation, the loss to Canada’s engineering community and aviation industry remains incalculable,” the article concluded. “It is clear from

international reports of the day that the rest of the world was highly impressed with the Avro corps of engineers and the Arrow. Thirty years later, it is time for Canadians and Canadian engineers to look back and be proud of this magnificent engineering achievement.”

Subsequent coverage in *Engineering Dimensions* focused on former Avro Arrow engineers joining NASA to work on the Apollo project. And in 1998, *Engineering Dimensions* featured a two-part series on the lasting impact of the Avro Arrow cancellation. Its author, Andrew Zakrewski, P.Eng., argued that the federal government’s decision stunted a burgeoning high-tech industry in Canada and led to a lingering impression that “there was no future in coming up with innovative ideas in Canada.”

“Thirty years later, it is time for Canadians and Canadian engineers to look back and be proud of this magnificent engineering achievement.”

Avro Arrow: An Aviation Chapter in Canadian History, Sept./Oct. 1988

Community trends

Not surprisingly, the magazine’s pages have also mirrored trends and concerns in the wider community, tailored to a professional engineer audience: information technology, the role of the P.Eng. in finding new energy sources, protection of the environment, the growth of the Internet as a research and information tool, the emergence of ethics (and whistleblowing) as a key element in corporate operations, and the impact of free trade and globalization on engineering practice.

In the May/June 1985 issue, *Engineering Dimensions* discussed the gradual embrace of computer-assisted design/computer assisted manufacturing in the modern workplace. Eleven years later, in a 1996 issue dedicated to engineering in the information age, the magazine proclaimed, “The current range of software products available to engineers permits nearly complete virtual product development, including creation, analysis, prototyping, testing, optimization and full visualization by computer software. When virtual prototyping is coupled with rapid prototyping software and hardware, products can go from concept to manufacturing prototype without any conventional drawings or machining. Going a step further, computer-aided/computer-integrated manufacturing technology can take much of the trial and error out of developing and managing final manufacturing processes.”

The profession’s stories

There has also been a wealth of discussion within the magazine’s pages about issues close to all engineers’ hearts, such as the image and reputation of professional engineers versus other professionals, revisions to the *Professional Engineers Act*, professional mobility between provinces or among nations, and advances in engineering education—a recurring topic that surfaces once again in this issue. Other issues of importance have been—and continue to be—the challenges inherent in defining and regulating such emerging disciplines as software or biomedical engineering, the rise of the engineering team, competence assurance, changes in discipline and enforcement practices and procedures, the “one-size-fits-all” P.Eng. licence and access to the profession

on the part of international engineering graduates (IEGs).

Access a recurring theme

A January/February 1999 feature, “Lending foreign-trained engineers a helping hand,” had former PEO Councillor Max Perera, P.Eng., offering some sage advice, “There’s a message to be conveyed to potential immigrants to prepare them for the regulation of the profession here in Canada...We [the engineering profession in Ontario] have bent over backwards to make it relatively easy for immigrants to get back into the practice of professional engineering without compromising our standards and the regulatory requirement to govern the profession in the public interest.” In fact, editorial coverage of access issues has never been far from the surface in the magazine, up to and including reports of PEO’s most recent efforts to join with other stakeholders in continually examining potential barriers to licensing for IEGs.

With Canada becoming a much-desired destination for immigrants the world over, efforts to review the licensing and registration process in light of this new reality provided abundant grist for the editorial mill, as did efforts to integrate the skills and experience of the IEG into the wider community.

Regulatory incursion

Conflict between provincial government legislative initiatives and the profession’s self-regulatory authority has also been featured prominently over the past 25 years. Although younger readers might think this issue has gained prominence only recently, it has reared its head frequently, adding editorial spice to the magazine every time.

Back to the future

Looking 20 to 25 years down the road has also been a recurring focus. Although it’s an old newspaper trick to interest readers with plausible predictions, *Engineering Dimensions’* blue sky articles have been aimed at helping PEO members—and the magazine’s wider readership of engineering students, government and others—appreciate how far engineering has come and what challenges and opportunities may be ahead. The September/October 1997 issue celebrating PEO’s 75th anniversary, for example, solicited the views of 20 specially selected individuals (P.Engs and non-P.Engs) on the state of the profession in 2022. Said Tom Brzustowski, P.Eng., president of the Natural Sciences and Engineering Research Council (NSERC), “Engineering will be a much more globalized activity and engineers will need to be prepared to work in other languages and cultures...The way that engineers will acquire knowledge in order to serve the public will change. There will be a much greater variety of providers of knowledge, so PEO will have to be innovative in how it ensures the competence of its members.”

Brzustowski’s speculation on the importance of ensuring engineers’ competence overlaps effectively with a theme intrinsic to *Engineering Dimensions’* first quarter century, which might best be thought of as how to communicate—to membership, government and the general public—the notion of respect for the P.Eng. licence and PEO’s authority to regulate engineering in the public interest. In 1980, the decision for PEO to go it alone to publish its own official journal, using advertising revenue to finance an improved product, was a leap of faith. But ever since, the magazine has tried to reward that faith by making a bit of noise for “the silent profession,” whose contribution to public protection and welfare has often been taken for granted.