

About STEM in MA from my Perspective In the beginning

It started when I was principal of HW High School...We bought a "fat" Mac, at George's insistence (smart person that he is) and I started using it as a productivity tool. I took a course in Basic at Ipswich HS and realized that I would never be a programmer but as a result of the course I understood the capacity of the technology (at that time, of course). I have written elsewhere that I took the Mac in its padded carrying case to an early MassCUE conference and my session became an exploratory event for some of the attendees who were intrigued by a "principal who had computer and would travel."

I mandated a PD experience for the Hamilton-Wenham staff to encourage movement from the then current use of technology (PDP 11) by the Math department to all departments. I encouraged the English department to use a computer to teach composition since revising was so much easier. After a brief period of dissent, the faculty realized this new tool had potential. When I organized a PD opportunity for the faculty, with those who were users showing what they were doing, some faculty balked (The Social Studies Department Chair who was the head of the teachers' association asked the Superintendent whether "she can make us do that?") but at the end and after people were intrigued and grateful.

The next major development was the creation of the MASS Tech Task Force when I became Superintendent in Easton. I received permission and support from Peter Finn, then the ED, to start and run it, which I did for several years until I wanted others to assume some leadership (It still exists today). Peter even targeted \$50 for expenses.

The first PD experience about technology for superintendents came from the Task Force. Apple Computer, in the form of Jim Lingle, suggested Collier Crumb, professor at the Harvard Business School who was a wonderful speaker. We mounted a half day event including a simulation in which a few of us played various roles: superintendent, principal, teacher and student.

Apple remained a great supporter of the Superintendents' use of technology and invited me to serve on two advisory committees, sequentially, on the second of which I helped to prevent disaster by pointing out, with the few other women in the room, that the form factor being proposed excitedly by the company would be a disaster in junior high school because it resembled a body part.

The next phase came at Lesley University where I was appointed the Director of the Technology in Education Division. After I left Acton, I was afforded an opportunity to experience the remainder of the K-16 continuum. Lesley was a pioneer in the field...offering a program before most other higher education institutions and a way to get a degree at a distance in the use of technology in schools. While I was the Division Director, faculty flew to locations all over the country and provided online support as well. The model was: some work before the first weekend of f2f (from Friday evening to Sunday morning), the weekend "marathon", work during the next month ---online--- a second weekend as described above and then a final project due several weeks after that. I taught a few courses in that model with my colleague Joan Thormann (with whom I eventually wrote *The Complete Step-by-Step Guide to Designing & Teaching Online Courses* published by TCP in 2012.

During many of those years I was an active member of BEST, Business and Education for Schools and Technology, co-leading for several years with Beth Lowd, and in that capacity I spent many hours in the MA Legislature “educating” the reps and the legislators and participating in a couple of caucuses and commissions.

From Lesley I went to the Office of the President of UMass as Jack Wilson’s point person for STEM. I oversaw the planning and mounting of several of the MA STEM Summits, developed the website for STEM and tried to get a better articulation with K12. One of the projects was to create a plan for STEM for MA. I kept a group of 30 stakeholders together for almost two years developing a plan. When the University did not want to be seen as the “owner” of the plan, we called it an outline. However, it was the basis of v1.0 developed under the aegis of David Cedrone when he managed STEM in the DHE and before Allison Scheff was hired. And in 2012 I was asked by the DHE to oversee with Lance Hartford, the development of v2.0 which was approved by the Council and at this writing is the plan of the Commonwealth.

Ironically in the midst of the initial glow of the MA Council, Dave Cedrone hosted a meeting of STEM leaders from across the country in Boston. One of the people invited was Jeff Weld from Iowa, whom I had met during my stint at UMass. He treated me to dinner at Legal Seafood in the Copley complex and after a couple of hours of sharing information and opinion, asked if I would be interested in serving on the Iowa Governor’s STEM Advisory Council. With David’s support, I was delighted to accept the offer....no compensation but no out of pocket expenses.

I have been to Iowa half dozen times (recently appointed to a second term on the Council) and have read proposals for their ScaleUp (modeled with attribution on @Scale). For this particular piece of work, Jeff paid me a stipend. He wanted this to be seen as an objective task. I attend meetings either f2f or digitally and I speak with people on the phone. Last time I was there I spent a day meeting with several groups, including the Children’s Museum in Iowa City and a class of aspiring science teachers at the University of Iowa.

The most recent achievement in MA was the creation of the Global STEM Education Subcommittee of the Council and appointment as its chair. I proposed a parallel committee for Iowa.

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