Education Futures Program

HOW BRIGHT

IS YOUR

FUTURE ?

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The k-12 education space is under increasing pressure to improve teaching effectiveness, improve learning efficiency, and allow for natural improvements in student performance through more creative and empowering means of student learning. As teachers are being challenged to handle more students with fewer resources, they are under additional pressure to excite and motivate their students and take direct responsibility for increasing student performance. Teachers are also expected to understand on a more personal level, the skills, strengths and weaknesses of each student, while improving communication with families so that significant others outside the direct educational fabric can contribute as partners to the overall learning experience and intended outcomes. At the same time, a key trend, if not a transformation, that is impacting both teachers and students is their need to deal with and comprehend large amounts of information that is no longer provided dominantly in paper but increasingly in digital form on computers and the internet. While that transformation under way, each student is expected to take a more proactive and personal responsibility for their own learning experience. However, when coupled with the reduction in funding for teacher staffing, causing teacher/student ratios to head in the wrong direction, there is increased risk that students will become alienated and disenfranchised in the process.

The **Education Futures Program(EFP)** is proposed as a partnership between university, industry, philanthropists, educational institutions, educators, families, and students that will (a.) take a leadership role in developing best practices for classroom operations that supports the change in k-12 teaching methods, curriculum delivery, and content acquisition arising out of the shift from paper and pencil based information delivery systems to the use of digital information delivery systems on computers and the internet , (b.) provide a consistent model and frame work for improving teaching efficiency and enhancing the ability of teachers to deliver and students to gather, process, learn, and reference curriculum specific content, (c.) encourage students to naturally extend their personal learning styles and curriculum independent skills in critical thinking, “thinking about thinking about learning”, and the generalized skill of being self-organizing, and (d.) increase the success each student has in taking responsibility and personal control over their own learning experience.

EFP’s proposed mission is to help **Educational Institutions, their students, and families** recognize the opportunities and threats brought on by this sea change in moving from linear information handling based on paper and pencil to multi-dimensional information handling using computers. EFP will identify and enable it’s constituencies to better understand the drivers that will (a.) have the most impact in increasing teacher efficiency in classroom operations management, (b.) contribute most toward each student’s achievements in the process of content acquisition and understanding, and (c.) deliver the highest bandwidth and greatest satisfaction in communication among teachers, students, and parents about student progress toward mutually established goals.

EFP’s mission further comprehends the development, building, and adoption of technologies that can create a discontinuous leap in the absorption of all such enablers that embody critical innovations in this space. **EFP industry partners** will be assisted in the identification and creation of tools that can be used in the educational marketplace to enable the above stated outcomes and will be given insight into the means that will allow mass diffusion of the best practices that accompany these enablers. These tools will span the discontinuity between paper and electronics and will comprise novel, innovative, simple but powerful solutions that anticipate the path to an all digital world and integrate new forms of devices to accomplish this including not only new software and computer applications but also pseudo digital manipulatives and digital manipulatives.

Philanthropists will play a role in supporting key projects that fit their criteria for giving including targeted assistance to economically limited constituencies, diverse programs directed at improved teaching methods, support for mentoring projects including jobs works programs for children in inner city schools, assistance to special needs challenged students, as well as gifted student acceleration. Founding donations that meet EFP's longitudinal objectives for program impact and acceleration will be recognized by being established as named programs.

The real beneficiaries of this initiative will be the end users of the products and services that arise from EFP's longitudinal mission, the Educators, the Students, their Families, and the society at large that will benefit from a more effectively educated community. The intended outcomes can be better understood through the questions suggested here:

----What if every k-12 teacher had the tools to manage their classroom process and the tasks associated with content delivery in a more efficient and universally understood and applicable way?
----What if these tools were scalable from k-12 and supported a portfolio model that could be owned by each and every student, and what if that model supported and bridged the direct migration from paper to the computer?
----What if the language and methods for handling information were simplified and given generally acceptable meaning that permitted natural, consistent, and effective communication between parent, student and teacher alike?
----What if each student was empowered with readily understood tools and methods that actually allowed the student to manage their own curriculum content seamlessly throughout the term and which enabled teachers to increase the actual time spent teaching to curriculum while at the same instant increasing the quality of that time?
----What if every student emerging from the ecosystem engendered by EFP came away with life long organizing skills that served them directly in the adoption and effective use of information management tools on computers and the internet, first at school, and then at work?

EFP Philosophy: EFP supports the important role that technology will play in changing the way teaching is done in the classroom and believes that additional new tools that are orthogonal to curriculum are essential for this transformation to take place. EFP realizes the critical role that industry is going to play in delivering the tools that will be drivers in this transformation, tools that will foster the essential understanding their users crave. EFP is desirous of ensuring that it's industry partners discover the best tools that are needed, and build them in time for each stage of the child's development, on time for the markets needs, and on target for the job to be done. The insight industry partners will gain will enable important cost savings from on budget, cost effective tool building programs. A key aspect of EFP will be the fostering of industry partnerships between stationery products and computer software and hardware companies enabling the uniform representation of the tools that support seamless migration from paper to electronics. Another key aspect of EFP is that it will foster the participation and key role of industry partners having responsibility for not only distribution but also training so as to enable the best diffusion and absorption of the new and improved tools and best practice methods of use.

EFP promises to focus on and accomplish a number of important tasks:

1. Foster the invention of technologies that create gap-spanning innovation in the movement of content and curriculum from paper to electronics.
2. Identify and create industry transforming infrastructure that will allow for the diffusion and absorption of the tools including the development of teach the teacher programs, mentoring programs, and other specialized products and services that foster, encourage, and allow for continuous and unimpeded adoption
3. Align members across the educational delivery value chain to speed innovation and the delivery of programs, products, and services
4. Develop an appetite with all constituents for increased awareness of related opportunities emerging from the initial focus on organizing skills and tools for building organizing skills

Working Group Structure: A working group structure is proposed that will allow industry participants to be engaged closely with university faculty and educational institutions in the research and to provide valuable input into the direction of the program. Working groups will be chaired by faculty and industry sponsors. Working groups will be fluid and will be launched as new issues emerge and disbanded as issues become less relevant. Initial working groups are (a.) Educational Technologies That Create Gap Spanning Innovation Between Paper and Electronics, (b) Peer Mentoring-Each Student Infrastructure, (c.) Teaching The Teachers & Teacher Mentoring-Each Teacher Infrastructure, (d.) Building Blocks In Paper With Semantics That Support Migration To Digital Workspaces. The usual means for infrastructure creation and implementation will be a part of the EFP project including the utilization of a dedicated web site, the hosting of an annual workshop, and the publication of a regular news letter among other best practices for the provision of effective working groups.

Proposed Leadership:

EFP is proposed as a new cross cutting research program and intends to draw on the expertise of researchers throughout the participating Universities, sponsors, philanthropists, students and families. The program is planned as the first national initiative under Bookwindows.org, a not for profit foundation that is being formed to support the overall objective of enhancing education delivery and best practices in k-12. What is intended for Step #1 is the formation of an interdisciplinary team lead by David C. Schwartz [Cornell University Class of '71, MIT Class of '73, BU Class of '79]. The core team would be comprised of at least one key faculty member from each of the initial participating schools as well as a liaison officer from each contributing company sponsor. David Schwartz is in the process of contacting Boston University's School of Education and the MIT's Laboratory of Computer Science to explore their interest in being founding Educational Partners. It is proposed that selected Philanthropists would be sitting members of an advisory group. Educational leaders from the public and private school sectors, parent teacher organizations, and students from various demographics would be engaged in committees that would form around each program.

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