

The Front Cover

Nearly four months ago, I sat in Anderson's office as he explained the EBM to me. At the time, the very concept of printing a book on demand seemed foreign and odd—perhaps even an impossibility. As he spoke about the future of digital distribution, I doubted his claims that five commercial laser printers could crank out a book every two minutes, especially one that rivals the quality of a printing press.

But Anderson has been committed to this project from the start. Just over a year ago, he met with Jason Epstein at a conference in Boston. Epstein, most notable for inventing the trade paperback in 1952, is one of the brainchilds of the EBM and co-founder of On Demand Books, the company that made the device a reality.

Epstein's proposal to Anderson must have seemed too good to be true—with the EBM, the U of A Bookstore would have the ability to print nearly any material it or its customers desired without freight fees, inventory costs, or the fear of over- or under-ordering a title. Many people

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But pushing out that curve and giving production control to consumers, especially at a postsecondary institution with constantly varying material needs, will have far greater ramifications, as Anderson explains. Publishers of academic materials are currently faced with many wasteful practices, the costs of which inevitably end up getting passed on to consumers. Transportation costs make it a waste for publishers to send small orders across the country, and returning unsold books to publishers can rack up fast for retailers, not to mention the environmental damage caused by all that freight and wasted paper. Furthermore, most textbooks contain far more information required for students—superfluous chapters whose pages will never be read jack up printing and royalty fees.

Publishers can mitigate much of this by simply allowing bookstores with an EBM to buy the rights to their digital files and print their own material as needed.

The Latest Edition

One of only four of its kind in the world and the first one designed for commercial use—beta versions have previously been installed at the World Bank in Washington, DC; the Bibliotheca Alexandrina in Egypt; and New York Public Library's Science, Industry, and Business Library—the EBM is attempting to forge new territories in the publishing world by allowing on-demand printing of any material that exists as a digital file and has acquirable copyrights. It's a perfect marriage of high-tech 21st-century digital distribution and the Gutenberg press.

Right now, the EBM is capable of printing a wealth of materials: coursepacks from traditional publishers, professor-created material, custom anthologies, reports and theses, small print runs for publishers, or any of the 288 000 titles from the University's digital collections.

"We've managed to wrap this around an institution that has digital repositories, has a demanding course book operation, has a vibrant creative writing community around it; the applications

"As people start becoming more comfortable with digital, you get people who are used to reading online. You're going to get to the point where they're going to want to get their material that way. But right now, there's a content issue: you just can't get enough of it online, and it's too expensive. This is sort of lengthening the curve of where book sales are going to go."

probably would have felt like they were dealing with a snake-oil salesman, being offered something too good to be true. But you need to only speak with Anderson for a few minutes to realize that he knows his business inside and out, and wasn't about to miss an opportunity this huge. The wheels were set in motion in late October 2006, and on 19 October of this year, Anderson sent me this email: "We just walked over to our Materials Management building and touched our book machine. Three pallets (ten feet wide each!) of bookseller ecstasy!"

The Bind

Installing the EBM—what *Time* magazine has recently named one of the best inventions of 2007—at the bookstore of a Canadian university, even one as large as the U of A, might seem odd at first, but Anderson has put a lot of thought into the future of publishing.

"I see books kind of on a curve," he explains while one of the printers effortlessly churns out pages of another paperback. "As people start becoming more comfortable with digital, you get people who are used to reading online. You're going to get to the point where they're going to want to get their material that way. But right now, there's a content issue: you just can't get enough of it online, and it's too expensive."

"That's the truly on-demand thing," Anderson says emphatically. "If a professor says, 'I only need eight chapters of this book,' there are two options: you can go back to your head office and say, 'We need eight chapters of this book,' and usually what they do is cut the spine off and rebind it. Or you can say, 'We want eight chapters of your book, but we want you to run it through the U of A.' We're giving the professors one more negotiating tool. Now they can't be told 'we can't do that,' because we can."

"We can't do 1000, but we can do one. And that's the value of it. The costs come down at 700 copies, 1000 copies; we can't beat those costs. But for one, we can beat anyone's costs; for 30, for 50, for 200."

So far, Anderson says, the response from publishers has been rather positive, but he says there's still some trepidation.

"Some of them have been saying, 'Let's wait and see.' Some of them have been worried about quality. Quality control is a big one, but it's unfounded," Anderson says, comparing a custom-made book from a large publishing house to a one-off from the EBM. It's a fairly straightforward comparison: the publisher's copy looks like a clumsy 8.5 x 11" workbook. On the other hand, the EBM has produced a legitimate paperback that would be undetectable if haphazardly placed among the shelves of the Bookstore.

for this thing are kind of limitless right now," Anderson explains of the EBM's future.

"The marginal cost of production is so low, we can do books that are relatively inexpensive," he says: texts could cost as little as \$3. But more importantly, the effect on the operational structure of the Bookstore and for students might be the most important factor in bringing the EBM to the U of A.

"It's going to save money for students; it's going to gain some revenue [for the Bookstore]. One of our mandates is to not make money off of textbooks, but to break even on textbooks. If we can lower the cost of textbooks and make money somewhere else, then we're doing something right."

With a smile, Anderson hands me the copy of *Flatland*: a fitting first print of the EBM. In the book, a square inhabitant of the two-dimensional Flatland is visited by a sphere from the three-dimensional Spaceland. After being enlightened to the existence of this new dimension, the square begins pondering the existence of even more dimensions beyond the third.

It's yet to be seen if the EBM will be a new dimension in publishing, but Anderson has been enlightened to its possible existence, and a trip to the basement of the Bookstore should be enough for anyone to be swayed towards on-demand publishing.



TODD ANDERSON
BOOKSTORE DIRECTOR



5 The shuttle passes the spine edge of the block over a roller of hot glue. The glue is a special non-toxic blend with minimal fumes. Small glue pellets are melted down in the glue pot, which, Anderson explains as he shows off a burn he received while filling it, has been aptly named the "danger hole."



6 The shuttle continues on and presses the book block to the already-printed cover, lining the block and cover up with laser accuracy. After a few seconds for the glue to set, the cover is folded over and the book is grasped by a pneumatic arm.



7 Based on the predetermined size of the book, the arm then places each edge of the book in a cutter, trimming the book down to its proper size.



8 Finally, the arm drops the book through a chute into the waiting hands of its proud new owner.