

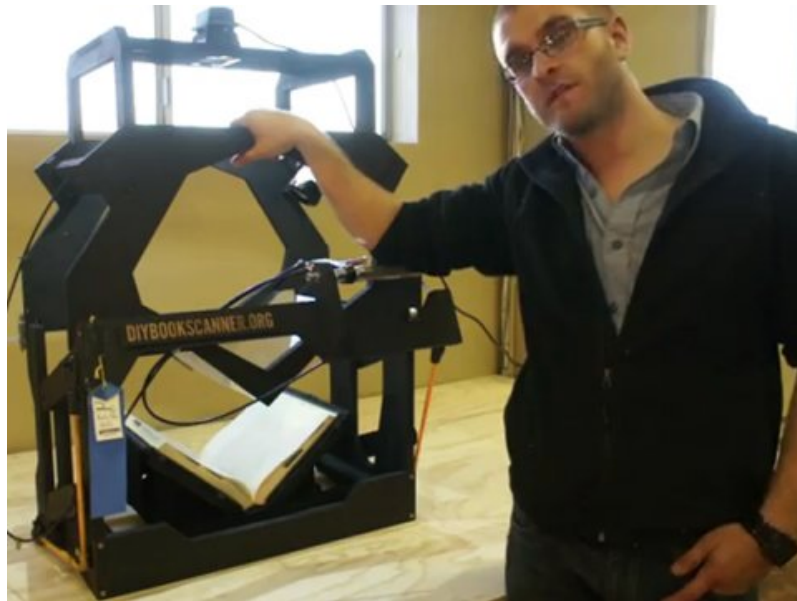
BUSINESS INSIDER

This Book Scanner Is Changing The Infrastructure Of Reading



DYLAN LOVE
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Daniel Reetz is an artist and engineer who ran into a problem one day – his office building collapsed, breaking its steam pipes and ruining every book in the building.



YouTube Screenshot

But while the physical books were

destroyed,

Reetz's loss

wasn't 100%. He had digitally scanned most of them, and as long as he had redundant backups in ones and zeroes, he'd never actually "lose" his books.

Daniel Reetz is the inventor of the DIY Book Scanner

Reetz is the brain behind [DIYBookScanner](#), an open-source piece of hardware that's been redesigned and reinvented with help from a large internet community. The scanner digitally captures books to preserve them and put them on whatever device you like. It can be built out of materials that you likely already have around the house, or you can order [a kit from his site for \\$475](#). The next most comparable device you can buy would be [significantly more expensive](#).

We love it when an expensive or inaccessible technology is made instantly easy or affordable. But because the DIYBookScanner deals directly with aspects of intellectual property, preservation of knowledge, and the circumvention of the "broken medium" of physical books, it begs a number of questions.

Reetz was kind enough to answer some of them for us.

BUSINESS INSIDER: Any cool stories about how people are using the scanner?

DANIEL REETZ: The short list: it's been used to digitize fire and tsunami-damaged holy books in Indonesia; to digitize engineering texts for a student with eye troubles; to digitize French Creole medical records in Haiti; to digitize the ships logs of Minnesota, a landlocked state; to digitize fileslips, the linguistic "recipe cards" that become dictionaries; as the basis of a book on getting books into the OLPC computer; used to digitize over 36,000 pages of yearbooks; used to digitize collections of QSL cards. It even showed up as a major plot element in Mr. Penumbra's 24 Hour Bookstore!

Fundamentally, this project has really become about all the niche book scanning stuff that everyone else ignored.

BI: Is it fair to say that ultimately the scanner is about preserving knowledge?

DR: Yes, and about people helping themselves. The most important thing to note here is, despite the ENORMOUS focus on digital books, their marketing, scanning, distribution, reading, and sale, there has been nearly ZERO focus on all the books people already own. Whole classes of books and book-related desires have been wholly ignored. That's where I – and my designs and league of interesting people – come in. We help people get their books into a format they can use, using mostly stuff they already have. They might not always be archival-quality scans, but they are a whole lot better than being ignored.

BI: What's most frustrating about current intellectual property law?

DR: The fundamental problem with intellectual property law is that it was formed in a totally different technological era. It wasn't designed for our current age of computation and copying. When these legal concepts came into being, it was hard to make a copy. You needed, for example, a printing press. Today we copy thousands of times a second with our electronic devices. The law can't handle the present. And that's where the trouble begins.

Some people are trying to change the law, but others are exploiting it to make everyone miserable and to make everyone tithe. I'm not the first person to say this, and I won't be the last. It's a bad situation.

BI: You've previously called physical books a "broken medium." Care to elaborate?

DR: It's pretty straightforward - it's tough to read a physical book on my phone, really hard to update one with new information, really hard to cross-reference them with other texts, it's impossible for blind people to access most of them, many of them continuously self destruct because of the paper they are printed on, some are in constant danger because of the ideas contained in their pages, I can't share them without depriving myself of access, and backing them up is a lot of work.

Fundamentally, I'd like to see a new form of reading that takes the best from physical books and digital books. For example, I'd like a textbook that gets incremental updates instead of having to be re-purchased with each new edition. This already existed many years ago in the form of a binder-like encyclopedia that was updated as the world's knowledge increased. Or I'd like an ebook that doesn't have to be turned off for takeoff and landing, and that I can easily mark up with a pen. All the technology to do this already exists. It's just scattered.

BI: What's the value in a digital file over a physical book?

DR: Accessibility, primarily, in the broadest sense. I can get it, use it, and share it anywhere. Annotation – the markup can be (but isn't yet) extraordinarily powerful. Also search – being able to search my entire bookshelf for just the passages or information I want would be wonderful. Double-edged sword, though – scanning through books looking for specific things often leads to new insights and unexpected connections.

BI: What's the value in a digital file over cloud access through [Amazon](#)?

DR: If you own the file, you control it. That's the fundamental thing. You can copy it, back it up, delete it, or even scramble up the bits into interesting digital art, whatever!

If it's on someone else's server, and you can only get at it through an app, you don't own it or access to it. It's the worst of the rental market, because someday your landlord is gonna die. Or get tired of renting to you. Or the device you're reading on is going to become obsolete and unsupported. This already happened on some of the early ebook reader platforms.

BI: What's the future of books, physical and otherwise?

DR: If you ask me, physical books are going to follow a path similar to vinyl. They always have and always will contain information we care about and want access to. And their medium has special, wonderful properties that make them lovable and not easily discarded, unlike, say, 8-track. So they'll be around for a long while, but increasingly their maintenance will become more and more costly.

In the meantime, the market will move to ever cheaper and more ephemeral forms of distribution, like, well, it already has. On a personal scale, you'll buy less and less bits and more and more bytes. You'll own less, but have more. At some point, real books, like

letterpress, vinyl, and other mediums with weighty history and wonderful physical manifestations, well, they'll be niche. There will be artisanal binders in Brooklyn binding up books the old way with rabbit glue, and there will be a variety of companies that survive on a technicality like some documents being legally required to be printed in book form, or some people (such as the visually impaired) needing them in a particular physical form.

But as time goes on, NEW real books will increasingly become a novelty, an add-on to a digital purchase process. Their position as a source of vetted, edited, clarified and concentrated quality information and exposition is unlikely to change, given the extreme brevity of online communication, but the flow of information and discussion will not be so gravitationally whorled around them.

Libraries will evolve in interesting ways. Some will become museums and archives. Some will become information hubs – even more than they are now. Some will make disastrous decisions like putting the whole place on iPads and iTunes only to get hosed with each new version. At least there's a progressive idea in that.

But this is not a lamentation. I look forward to greater access and more sensible distribution, as well as greater volumes of books for people who can only consume them in particular ways. I also look forward to the end of obscurity. THAT is what I am really hoping to help bring out of all this. No longer will those rare, one-off books rot until someone unknowingly chucks them. They'll be out there, somewhere, ready for discovery. Ready for reading.

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