ensure grammatical correctness and a singular voice. Finally, it goes into production and through a final proofread. The whole process is very time-consuming.

All the people involved in this process are paid. OpenStax does not rely on volunteers. Writers, reviewers, illustrators, and editors are all paid an up-front fee—OpenStax does not use a royalty model. A best-selling author might make more money under the traditional publishing model, but that is only maybe 5 percent of all authors. From David's perspective, 95 percent of all authors do better under the OER 2.0 model, as there is no risk to them and they earn all the money up front.

David thinks of the Attribution license (CC BY) as the "innovation license." It's core to the mission of OpenStax, letting people use their textbooks in innovative ways without having to ask for permission. It frees up the whole market and has been central to OpenStax being able to bring on partners. OpenStax sees a lot of customization of their materials. By enabling frictionless remixing, CC BY gives teachers control and academic freedom.

Using CC BY is also a good example of using strategies that traditional publishers can't. Traditional publishers rely on copyright to prevent others from making copies and heavily invest in digital rights management to ensure their books aren't shared. By using CC BY, OpenStax avoids having to deal with digital rights management and its costs. OpenStax books can be copied and shared over and over again. CC BY changes the rules of engagement and takes advantage of traditional market inefficiencies.

As of September 16, 2016, OpenStax has achieved some impressive results. From the *OpenStax at a Glance* fact sheet from their recent press kit:

- Books published: 23
- Students who have used OpenStax: 1.6 million
- Money saved for students: $155 million
- Money saved for students in the 2016/17 academic year: $77 million
- Schools that have used OpenStax: 2,668 (This number reflects all institutions using at least one OpenStax textbook. Out of 2,668 schools, 517 are two-year colleges, 835 four-year colleges and universities, and 344 colleges and universities outside the U.S.)

While OpenStax has to date been focused on the United States, there is overseas adoption especially in the science, technology, engineering, and math (STEM) fields. Large scale adoption in the United States is seen as a necessary precursor to international interest.

OpenStax has primarily focused on introductory-level college courses where there is high enrollment, but they are starting to think about *verticals*—a broad offering for a specific group or need. David thinks it would be terrific if OpenStax could provide access to free textbooks through the entire curriculum of a nursing degree, for example.

Finally, for OpenStax success is not just about the adoption of their textbooks and student savings. There is a human aspect to the work that is hard to quantify but incredibly important. They get emails from students saying how OpenStax saved them from making difficult choices like buying food or a textbook. OpenStax would also like to assess the impact their books have on learning efficiency, persistence, and completion. By building an open business model based on Creative Commons, OpenStax is making it possible for every student who wants access to education to get it.

Web links

1 news.rice.edu/files/2016/01/0119-OPENSTAX-2016Infographic-lg-1tahxiu.jpg
2 openstax.org/adopters