yavula could also make the books available on their website, making it possible for learners to access them using any device—computer, tablet, or mobile phone.

Mark and his team began imagining what they could develop beyond what was in the textbooks as a service they charge for. One key thing you can't do well in a printed textbook is demonstrate solutions. Typically, a one-line answer is given at the end of the book but nothing on the process for arriving at that solution. Mark and his team developed practice items and detailed solutions, giving learners plenty of opportunity to test out what they've learned. Furthermore, an algorithm could adapt these practice items to the individual needs of each learner. They called this service Intelligent Practice and embedded links to it in the open textbooks.

The costs for using Intelligent Practice were set very low, making it accessible even to those with limited financial means. Siyavula was going for large volumes and wide-scale use rather than an expensive product targeting only the high end of the market.

The government distributed the books to 1.5 million students, but there was an unexpected wrinkle: the books were delivered late. Rather than wait, schools who could afford it provided students with a different textbook. The Siyavula books were eventually distributed, but with well-off schools mainly using a different book, the primary market for Siyavula's Intelligent Practice service inadvertently became low-income learners.

Siyavula's site did see a dramatic increase in traffic. They got five hundred thousand visitors per month to their math site and the same number to their science site. Two-fifths of the traffic was reading on a "feature phone" (a nonsmartphone with no apps). People on basic phones were reading math and science on a two-inch screen at all hours of the day. To Mark, it was quite amazing and spoke to a need they were servicing.

At first, the Intelligent Practice services could only be paid using a credit card. This proved problematic, especially for those in the low-income demographic, as credit cards were not prevalent. Mark says Siyavula got a harsh business-model lesson early on. As he describes it, it's not just about product, but how you sell it, who the market is, what the price is, and what the barriers to entry are.

Mark describes this as the first version of Siyavula's business model: open textbooks serving as marketing material and driving traffic to your site, where you can offer a related service and convert some people into a paid customer.

For Mark a key decision for Siyavula's business was to focus on how they can add value on top of their basic service. They'll charge only if they are adding unique value. The actual content of the textbook isn't unique at all, so Siyavula sees no value in locking it down and charging for it. Mark contrasts this with traditional publishers who charge over and over again for the same content without adding value.

Version two of Siyavula's business model was a big, ambitious idea—scale up. They also decided to sell the Intelligent Practice service to schools directly. Schools can subscribe on a per-student, per-subject basis. A single subscription gives a learner access to a single subject, including practice content from every grade available for that subject. Lower subscription rates are provided when there are over two hundred students, and big schools have a price cap. A 40 percent discount is offered to schools where both the science and math departments subscribe.

Teachers get a dashboard that allows them to monitor the progress of an entire class or view an individual learner's results. They can see the questions that learners are working on, identify areas of difficulty, and be more strategic in their teaching. Students also have their own personalized dashboard, where they can view the sections they've practiced, how many points they've earned, and how their performance is improving.