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The solutions driving systemic change in the legal industry
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The algorithm that teaches and learns

SpacedRepetition.com

A professor at Suffolk University Law School, Gabriel Teninbaum *(pictured)* is the founder of SpacedRepetition.com. "My focus is on teaching new approaches to the delivery of legal services, especially those innovative methods and new technologies. This project is an outgrowth of that: I want students to use the best tools to learn."

Teninbaum's network runs deep: in addition to directing Suffolk Law's Institute on Law Practice Technology & Innovation, he also has appointments as a visiting professor at MIT, and as a visiting fellow at Yale Law School.

He started SpacedRepetition.com in 2014. The site uses a unique algorithm to help students learn far more in far less time. "An important focus for SpacedRepetition.com is helping law students succeed on the bar," he says, adding that thousands of American law school graduates fail the exam every year. "But it can also be used by students and lawyers in other contexts to help them retain other legal knowledge. It has applications beyond law, too, but law is the current focus."

Combining psychological research and web technology, the system is built on a series of electronic flashcards. The core content, called the Boost Deck, is written by law professors. "A student spends about ten minutes a day studying them, and for each flashcard they see, they rate how well they know each one on a scale of 1 to 5," explains Teninbaum. "To customise the exact moment when a student should learn, the algorithm learns from their ratings: it knows what they're struggling with, and what they know well. Users are then prompted to review at the ideal moment to maximise their learning.

"Studies show that by following that process — gathering enough data to predict when someone is going to forget and then reminding them just before — they'll learn at an exponentially higher rate. The algorithm taps them on the shoulder and says: study this. Every user has a slightly different pattern of recall, so the algorithm customises uniquely to each student."

Teninbaum confesses that he is more of an academic than a businessman. "There's no venture capitalist looking over my shoulder saying: get big or die," he quips. "It's just me trying to build something that's great." Nevertheless, success has been dramatic. More than 4,000 US students have signed up and the results are promising: at one school that offered access to all of its graduates, Teninbaum says: "The students who used the software passed the bar at a 19.2% higher rate than those who didn't. At another, it was 21% higher. Students using the platform for their courses during school also significantly outperform their classmates."

He adheres to the Pareto Principle: "We use this complex algorithm so people can learn 80% as much in 20% the time; and from there, we focus the content on the most-tested concepts, so users realise more dramatic efficiencies." Users are projected to improve their score by about eight points on the bar. This has dramatic potential, according to Teninbaum, because "between a third and half of people who fail the bar fail by less than that margin".

His mission is clear: "I hope to grow big enough to unseat bar prep companies that charge students thousands of dollars to watch videos summarising three years of legal education they just spent $100,000 for. That's offensive. To do that, the goal is to make this site as inexpensive as possible, and to make it accessible for everyone. I know that SpacedRepetition.com can change the way legal education works. We help people learn more, and we help people pass the bar exam when they would have otherwise failed."

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