



Osmosis

NYU Grossman School of Medicine Partners with Osmosis

How NYU Grossman School of Medicine leverages Osmosis to engage students and become leaders in medical education and research.



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Advancing human progress together



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Marc M. Triola, MD

Associate Dean for Educational Informatics Director, Institute for Innovations in Medical Education Associate Professor, Department of Medicine

The Program

“NYU is a place that recognizes both the opportunities and the imperatives for change in medical education,” says Dr. Triola. With a “very distinct culture and flavor of disruption in medical education,” NYU is transforming what it means to study medicine. From their tuition-free initiative to a three-year medical school program at the NYU-Long Island School of Medicine campus, NYU is evaluating new ways to distinguish themselves as medical education leaders.

The Challenge

Preparing students for licensure exams with high-quality content that cements NYU’s program as a leader in medical education.

NYU’s students are dedicated, resourceful, and intelligent, and their needs are changing. The prevailing US medical education model may not be serving them as well as it could be.

“The medical education program in this country is producing excellent doctors,” says Dr. Triola. “But it is rooted in an older model, the Flexner Report, which came out around 1908. Here we are, 110 years later. We need to break that lockstep because now we have much better ways to teach, assess, and ensure competence.”

With the COVID pandemic in 2020 came an opportunity for rapid change, forcing faculty across the country to adapt and reinvent the way they had been teaching. “The lack of leveraging online instruction and hybrid and other computer systems instruction has been a big missed opportunity in medical education,” said Triola, “And the answer is somewhere in the middle, of course, for healthcare in particular.”

For NYU, their solution was a hybrid model which blends faculty-created content with Osmosis materials to build effective and content-appropriate courses for its students. In short, NYU was rethinking the structure and function of medical school.

From emerging education models and new technologies like analytics, artificial intelligence (AI) and machine learning, NYU recognized numerous opportunities to innovate and sought new methods to integrate the expanding volume of medical school material more effectively.

But how could NYU prepare their students for a future that includes new technologies while ensuring good outcomes for student success, both in coursework and beyond?

“Thinking about how to measure competence and mastery in a way that is reliable across schools and trustworthy to the residency programs when our students move on. That’s something that many schools are working on, but there isn’t yet a ubiquitous good solution for it,” shares Dr. Triola. NYU understood the need for innovative solutions that would help support modernized curriculum, engage students, and continue expanding the medical education field.



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The Solution

Leveraging the power of Osmosis, built on years of learning science research, to create innovative, customizable solutions for their students.

To uphold its growing reputation as a pioneer in medical education, NYU needed to integrate tools that were as high-quality as their locally created curriculum.

According to Dr. Triola, “What we really liked about Osmosis most is their focus on curriculum: the modular nature of all of the content that they created and the culture of really creating a partnership with us.” Since its inception in 2015, Osmosis has paved the way for visual education in medicine.

With tens of thousands of immersive videos, clinical case questions, flashcards, and high-yield notes that cover physiology, pathology, pharmacology, clinical practice, and more, the platform is incredibly comprehensive. With millions of learners around the world using Osmosis, there is a high likelihood that students at your institution are already using the platform.

“Every medical school should realize that products like Osmosis are part of this broad ecosystem that our students live in. I think that medical schools really need to embrace the concept that there’s this larger world of resources out there.”

In an effort to recognize and leverage these resources, NYU sought a partnership with Osmosis that would bring their students the best learning experience possible. To help meet this objective, each institutional partner receives a

dedicated Academic Success Manager to guide faculty and students on how to leverage each Osmosis feature. This ensures optimal performance that helps meet each institution’s unique needs.

“We weren’t looking to be a passive customer, and we weren’t looking to be a customer like any other,” notes Dr. Triola. Particular to NYU, the opportunity arose for a customized, push-notification application programming interface (API) to be developed. This resulted in a NYU-Osmosis partnership that is transforming how students care for patients.

The jointly created API connector links Epic, NYU’s electronic health record system, with Osmosis’s video library. “Every night, the API looks at all of the new patients that our medical students have admitted to the hospital, looks at their diagnoses, and then queries the list of all of the Osmosis videos to see if there’s a matching content topic.” If the student has not accessed that video recently, Osmosis automatically queues it for the student the next morning before commencing rounds. Either by push notification or email, the student receives a message that says, “Hey, you just admitted a patient with congestive heart failure. Here’s the congestive heart failure Osmosis video.” This unique approach provides “just-in-time” learning solutions that increase student preparedness. In turn, this increases their engagement and confidence as developing healthcare professionals.



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The Result

Every student is becoming as successful as they can possibly be, and NYU-Grossman School of Medicine is established as the #4 institution in medical research.

Since the adoption of Osmosis, NYU has met the changing needs of its students in new, dynamic ways. Students are better prepared for a career in the modern healthcare environment.

Quality Content that Helps Faculty be More Effective Educators

“Osmosis is fantastic, in particular because of the growing pace of the content library and how they’re so agile and responsive to emerging things,” shares Dr. Triola.

Osmosis is designed to work with locally created course content, not replace it. This means faculty can ensure the Osmosis platform supports their program’s learning goals by serving up relevant, high-quality content. The platform integrates directly with their learning management system (LMS), making it easy to align Osmosis content and resources to their curriculum. NYU faculty are “really putting their heart and soul into reinventing these courses,” according to Dr. Triola, and staying on the cutting edge so they maintain their status as leaders in medical research.

“It’s not just the quality of the education materials, but also the digital footprint that students leave when using materials this way. That helps us on the analytics side to really be able to have much deeper insight into each of our students’ progress, their excellence, their achievement of mastery.” To this end, in-depth Osmosis analytics allow faculty to identify and remediate at-risk (and failing) students as early as possible.

Push-Notifications for Just-in-time Clinical Learning

Custom-built solutions like NYU’s API project are pushing them even further as leaders in medical education. “We just started it in January and we’ve already sent out 255 video recommendations to our students. They love it. And [it] magically happens in the background: Automatically triggered, personalized content based on the patients that they’re seeing,” shares Dr. Triola. Students are attending their rounds well-engaged, better-prepared, confident, and with key information fresh in their minds.

Successful Students who are Ready to Practice in Today’s Dynamic Healthcare Space

“That type of integration between Osmosis and our systems is a compelling case for the future. Osmosis is building all this beautiful content. Our students are generating this footprint in the electronic health record of what their educational needs are. And we created the glue to link those together. Now, we have an ecosystem of learning that is happening on its own,” shares Dr. Triola.

This means, as NYU continues to modernize its medical education methods, its students remain engaged and ready for practice in the 21st century healthcare environment. “If a student’s clicking and doing things in an interactive learning environment, not only can that digital environment automatically adjust to their needs, but we can help them by getting more information about their performance in their achievement of mastery,” explains Dr. Triola. This creates the well-rounded, world-class healthcare providers and researchers NYU is known for.

NYU’s willingness to think beyond the traditional bounds of medical education is allowing their educators, students—and, ultimately, patients—to benefit. Together, NYU and Osmosis are helping students receive the best learning experience possible. “Systems like Osmosis are helping the student craft a path that is unique to them and their goals and their needs. Those are important things that we really need to move toward,” says Dr. Triola.



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