SUCCESS STORY

GAMIFYING INNOVATION WITH AUGMENTED INTELLIGENCE AT BRANDEIS UNIVERSITY

CLIENT CHALLENGE

- "Blank page" paralysis for non-engineers turning ideas into invention disclosures.
- Difficulty expressing solutions in precise, patent-ready terms.
- Novelty uncertainty without fast prior-art checks under 24–48 hr hackathon pressure.

> "It democratizes the process. It allows anyone, regardless of their technical depth, to participate in the innovation economy with confidence."
>
> **DEBARSHI NANDY,**
> Professor of Global Finance
> Brandeis, School of Business and Economics

THE SOLUTION

- IQ Ideas+
- Technology Vitality Report (TVR)

IMPACTFUL RESULTS

- Prior-art orientation and validation cut from **weeks to minutes**.
- **Lower legal spend** by filtering weak ideas early; only strong concepts go to outside counsel.
- **Higher-quality, better-structured disclosures** that reduce TTO burden and produce investor-ready validation.

From “Blank Page” to Novel Concept

In the high-stakes world of venture capital and technology, the gap between a brilliant concept and a viable business is often defined by a single, daunting hurdle: Intellectual Property. That barrier used to be a substantial wall for Brandeis University students. The intricacy of patent language and the worry that their “new” idea had already been created would paralyze the innovation process.

Enter Debarshi Nandy, the Professor of Global Finance for the School of Business and Economics at Brandeis University. Professor Nandy, a seasoned academic with a deep focus on entrepreneurial finance and applied AI, realized that to teach innovation, he needed to do more than lecture, he needed to arm his students with a superpower – IQ Ideas+ from IP.com. By integrating IQ Ideas+ into his curriculum, Nandy has transformed his classroom into a high-velocity incubator, gamifying the invention process and proving that you don’t need a PhD in engineering to create patent-grade intellectual property. You just need a good idea and an AI-powered co-pilot to help get it across the line.

Paralysis by Analysis

“The blank page problem is the hardest obstacle,” says Nandy. His students found it difficult to convert abstract ideas into the exacting format of an invention disclosure because they frequently came from business rather than technical backgrounds.

There were two types of anxiety:

- **The Novelty Fear:** Students were unsure if their “breakthrough” was a commodity in a crowded space or a coveted crown jewel because they lacked a simple, trustworthy, and effective method to quickly uncover prior art. Without these, they couldn’t effectively and quickly pivot and develop their ideas into novel concepts.
- **The Language Barrier:** Students didn’t have the necessary technical background to explain solutions in a way that would withstand close examination.

Nandy required a tool that assisted in providing guidance and answers rather than merely searching for them.

Augmented, Not Artificial Intelligence

Nandy distinguishes sharply between the generic generative AI flooding the market and the specialized tools offered by IP.com. He teaches his students the concept of **“Augmented Intelligence”**. In other words, technology that is not designed to replace the human thinker, but to keep them in the loop and elevate their creativity.

Professor Nandy turned to IQ Ideas+ to support this objective. IQ Ideas+ acts as a virtual, AI-powered laboratory for students. It provides the structured scaffolding students need to articulate their problems and develop their solution, effectively curing the “blank page” anxiety. It also surfaces the prior art most relevant to the key novel aspects of the invention.

Ideally Suited for High-Velocity Innovation: The Hackathon Model

To simulate the pressures of the real-world startup ecosystem, Nandy structures his course assignments like a corporate hackathon. Instead of a semester-long, slow-burn research project, he gives students a specific "How might we..." problem statement and a tight window—typically 24 to 48 hours—to develop a viable solution.

"In a 24-hour sprint, you don't have the luxury of getting stuck," Nandy notes.

This is where IQ Ideas+ proves indispensable. In a high-velocity environment, traditional brainstorming is too slow and prone to "rabbit holes." IQ Ideas+ provides a structured ideation workflow that forces students to define the user, the problem, and the solution immediately.

It acts as an innovation accelerant. Students can instantly move from a raw concept to a structured proposal, checking for "white space" opportunities in real-time. What would typically take weeks of back-and-forth with an IP professional is compressed into hours of autonomous, AI-guided work. With IQ Ideas+ from IP.com, Professor Nandy and Professor Ian Roy have been able to effectively run "global hackathons" with the students of Brandeis as well as students at partner universities in India.

The Game-Changer: A "FICO Score" for Ideas

The true breakthrough in Nandy's curriculum came when he introduced the patented Novelty Scoring and Enhanced Technology Vitality Report (TVR) within IQ Ideas+.

Nandy describes this as a "FICO score for your idea". Just as a credit score tells a bank how reliable a borrower is, the novelty score tells a student how novel their invention is.

This feature helped gamify inventing and inspire iteration that is critical in the innovation process. "It becomes a feedback loop," Nandy says. Students draft a disclosure and run the report. If they see a "Low Novelty" score, they don't get discouraged—they get competitive. They dive back into the data, tweak their claims, refine their descriptions, and run the report again, chasing a higher score.

"They realize, 'If I tweak this, my score goes up,'" Nandy observes. "It teaches them valuable lessons about how to differentiate their product."

Results: Tangible Speed and Savings

The anticipated impact on the Brandeis program is expected to be profound, delivering measurable efficiency gains that will translate directly to the corporate world.

Higher Quality Disclosures

For Technology Transfer Offices (TTOs) and University administrators, the tools will filter out the "noise," delivering higher quality, better-structured disclosures that are ready for serious commercial consideration. By the end of the semester, students who had never written a technical document should be able to produce invention disclosures that rival those of seasoned R&D professionals in Fortune 500 companies.

From Weeks to Minutes

Prior art search and validation process, which traditionally took weeks of manual sifting, can be accomplished in minutes.

Cost Efficiency

By empowering students (and future employees) to validate their own ideas, organizations will save significant legal fees, ensuring that only the most promising, novel ideas are sent to outside counsel.

For **Technology Transfer Offices (TTOs)** and **University administrators**, the implications are clear: IP.com's tools can significantly increase the quality of disclosures coming from faculty and students, reducing the burden on TTO staff to filter out low-quality submissions.

For **Investors and VCs**, Nandy's approach highlights a new standard for due diligence. His students graduate knowing how to validate the "moat" around a business idea before asking for a dollar of funding as well as incorporate the content in their seed stage pitches.

The Future is Structured

Debarshi Nandy has proven that innovation is not a lightning strike; it is a discipline that can be taught, practiced, and perfected. By leveraging IP.com, Brandeis University isn't just teaching students about the future of technology—they are empowering them to invent it. "It democratizes the process," he concludes. "It allows anyone, regardless of their technical depth, to participate in the innovation economy with confidence."

ABOUT DEBARSHI NANDY

Debarshi Nandy is the Professor of Global Finance at Brandeis University's School of Business and Economics. His work focuses on innovation and entrepreneurial finance, corporate finance, and financial intermediation. In addition to his research and teaching, he serves as Program Director of the MSF program and mentors early-stage startups.

Brandeis University is a leading private research university located in Waltham, Massachusetts, just outside Boston, known for its academic rigor, interdisciplinary collaboration, and strong culture of innovation.

The School of Business and Economics at Brandeis University is recognized for its entrepreneurship-driven curriculum, analytics-powered business education, and close ties to industry and startup ecosystems. The school emphasizes experiential, hands-on learning that equips students to turn ideas into scalable, real-world ventures.