# A digital database for academic degrees

Government's initiative to establish a national digital database for digitally holding academic degrees from 10th standard onwards, received cabinet approval in October

Sanjay Gupta



The expectation is that a national digital database for academic certificates will drastically reduce the incidence of fake degrees. Photo: HT

**Mumbai:** The government's initiative to put in place a National Academic Depository (NAD) for digitally holding certificates from 10th standard onwards in a central database, which received cabinet approval in October 2016, is gathering momentum. "The concept had been in the works for some time wherein the government wanted to replicate what financial depositories had done in the capital market—which is the elimination of paper," said Joydeep Dutta, executive director and group chief technology officer (CTO), Central Depository Services (India) Ltd (CDSL).

CDSL is one of the two financial depositories—the other being NSDL or National Securities Depository Ltd—working on putting together the NAD through their subsidiaries—CSDL Ventures Ltd (CVL) and NSDL Database Management Ltd (NDML), respectively.

Both these companies have begun reaching out to academic boards, universities and other institutions recognized by the University Grants Commission (UGC), for signing them up on the NAD initiative. Regardless of which depository gets which academic institution on board, the data collected will be "replicated between the two", according to Dutta. On their part, academic institutions need to collaborate with any one depository to avoid duplication of effort.

NAD was formally launched at the National Convention on Digital Initiatives organized by the Ministry of Human Resource Development on 9 July in New Delhi, as part of the government's Digital India initiative.

The expectation is that NAD will drastically reduce the incidence of fake degrees. For instance, the Delhi Police busted a gang providing spurious educational certificates and degrees in February and recovered 200 fake documents from them.

Estimates suggest the number of fake degrees across India could swell into thousands. Experts also hope the NAD will greatly reduce the hassles of accessing and verifying academic credentials for students, domestic or foreign universities, human resource (HR) consultants and employers alike. Till date, CVL has conducted around 20 awareness sessions in different cities to promote the concept and benefits of a depository. Nearly 250,000 academic records have already been digitized and, according to Dutta, CVL is signing up five universities every week on an average.

"A representative from the company works with a designated official of the university—typically the controller of examinations, the registrar or the dean—for the digitization process," he said. The collaboration involves agreement to participate in the depository, concurrence on the format or type data to be uploaded, the fee structure for verification of certificates and other procedural details. "It's entirely up to institutions how far back in time they want to go for uploading the degrees," said Dutta.

Talking about the challenges faced in signing up academic institutions, Dutta said that, initially, they feared losing their revenue stream from the fee charged for verifying the authenticity of the certificates. So the academic depository is being "designed keeping these things in mind", according to Dutta. "We add our commission, which could be, say 5% or 10%, as agreed upon by the academic institution; in return, the verification process would become real-time and would be affordable to a larger number of students. The process would become hassle-free for students, who typically have to go from one place to another and often fall prey to touts. Also, they can get the verification done from anywhere in the world," he explained.

There are technical challenges as well. "Each university is at a different level of maturity in how it functions. Some of them have proper ERP (enterprise resource planning) systems to handle end-to-end processes from the time of admission to the awarding of degrees but many others have

primitive technology systems, which are based on FoxPro, Excel, etc," said Dutta. He added that even the printers to whom the universities outsource printing of degrees work on multiple templates and a standardized overall approach is lacking.

This means that different data fields of a mark sheet or certificate are captured in differing formats and stored in a variety of software programs. "To tackle the challenges resulting from this multiplicity, we have created a lot of 'converters' to make the data uniform and usable so that analytics can also be run on the data," said Dutta.

The ability to run analytics on this data assumes significance since the government may want to use the analytics for purposes such as identifying students eligible for scholarships based on economic, academic and other criteria.

Meanwhile, even as the government is pushing for Aadhaar to be seeded into academic records, it is not mandatory yet, said Dutta. Also, the historic data may not be updated with Aadhaar numbers but, going forward, universities and institutes "are being instructed to start capturing Aadhaar data" at the time of admissions from the next academic session.

According to Dutta, his company applies the same rigorous standards and tools to secure the data—including firewalls, encryption technology and other safeguards—as they do with the financial depository. He also clarified that as far as seeding of the Aadhaar numbers is concerned, "we are not storing any biometric data".

Experts in the human resources industry view the establishment of an academic depository as a positive development. "It would be good to have such a repository as it would bring in ease of doing things in the education ecosystem, in addition to acting as a means for background check on candidates being recruited or already employed with companies," said K. Sudarshan, vice-president of business development and chair of the Asia-Pacific region at EMA Partners International, an executive search firm. However, he added that the impact on senior positions "will not be that much" because most of the senior recruitments depend on experience and references.

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