

COMPANIES

Digital technology. Archiving

Japanese know-how reveals Vatican's treasures

NTT Data digitises drawings and manuscripts by the likes of Michelangelo and Galileo

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Aniche Japanese technology is behind a project to unleash online — for free with a click of the mouse — a rich collection of precious manuscripts and drawings tucked deep inside the nearly 600-year-old Vatican Apostolic Library.

The papal library, which holds cultural documents such as notes by Michelangelo and Galileo, is at the forefront of a high-tech experiment to marry its ancient texts with digital technology, with the help of Japanese IT services group NTTData.

The unusual cross-border project is in turn opening the doors of NTT Data's low-profile digital archive business to big opportunities overseas.

The endeavour comes as libraries, museums and research institutions worldwide are fighting against time to preserve ageing collections. Since 2010, the Vatican library also has been studying ways to protect its historical archives while making it easier for people across the globe to access them.

"The manuscripts are for all the people, not only for the Vatican library," says Luciano Ammenti, the library's chief information officer.

The Vatican library approached NTT Data about its technology two and a half years ago. The company has been applying its cloud-computing service for about a decade to help Japanese libraries preserve and store their ageing manuscripts and texts in digital form.

"Until now, we had only focused on Japan, but we realised that we had business opportunities all over the world. It's a common challenge



The Apostolic Library, above, was already using advanced, Nasa-developed technology to store documents digitally before it approached NTT Data
Christophe Simon/AFP/Getty

for humankind to inherit cultural assets," says Akifumi Nakajo, a senior manager at NTT Data involved in the Vatican library project.

Mr Nakajo says that since the project came to light last year, the company has received requests from libraries and museums in the US, Europe, Latin America and other parts of Asia to digitise their archives. "The Vatican impact was huge," he adds.

Currently, there are digitised images of 4,400 ancient manuscripts on the library's website that can be viewed for free — including a 1,600-year-old manuscript showing the work of Roman poet Virgil that was studied by Raphael, and 400-year-old paintings of traditional Japanese dance.

Still, the odd partnership with the Vatican library and the melding of differing cultures was a tough learning experience for NTT Data officials.

It began in October 2012 when a team of NTT Data officials went to the Vatican library to give a presentation. The first hurdle was to

convince the Vatican that the four-year project costing €18m was a business proposal rather than a philanthropic exercise.

It took time to build trust. During the three-month feasibility study, NTTData officials were not allowed to touch the delicate manuscripts or use the scanners for fear they would mishandle them. The Vatican library, in spite of its image as a conservative institution, was already using advanced technology

During the feasibility study NTT Data officials were not allowed to touch the manuscripts

originally developed by Nasa to store documents digitally.

NTT Data had to catch up with that technology and eventually improve it by making it easier and faster to do online searches of the library's archives. Its technology also enables manuscripts stored in high-

resolution format to be uploaded without a lag and in cleaner visual formats, according to officials.

In spite of the use of digital technology, the process itself is time-consuming and labour-intensive, requiring 25 people and six scanners working from 8am to 6pm. The project is also costly. The initial €18m in funds covers only 3,000 manuscripts.

Digitising all of the library's 82,000 manuscripts as well as coins, drawings and photographs is expected to cost more than €50m. To help finance the project, the library set up a foundation and users are invited to donate €5 to save a page in the manuscripts.

By doubling the number of scanners and staff, the Vatican library hopes the entire process can be completed in 15 years.

"The Vatican library decided to use [NTT Data staff] because we understand that they are not just technical people but people who share with us the same dream," Mr Ammenti says.