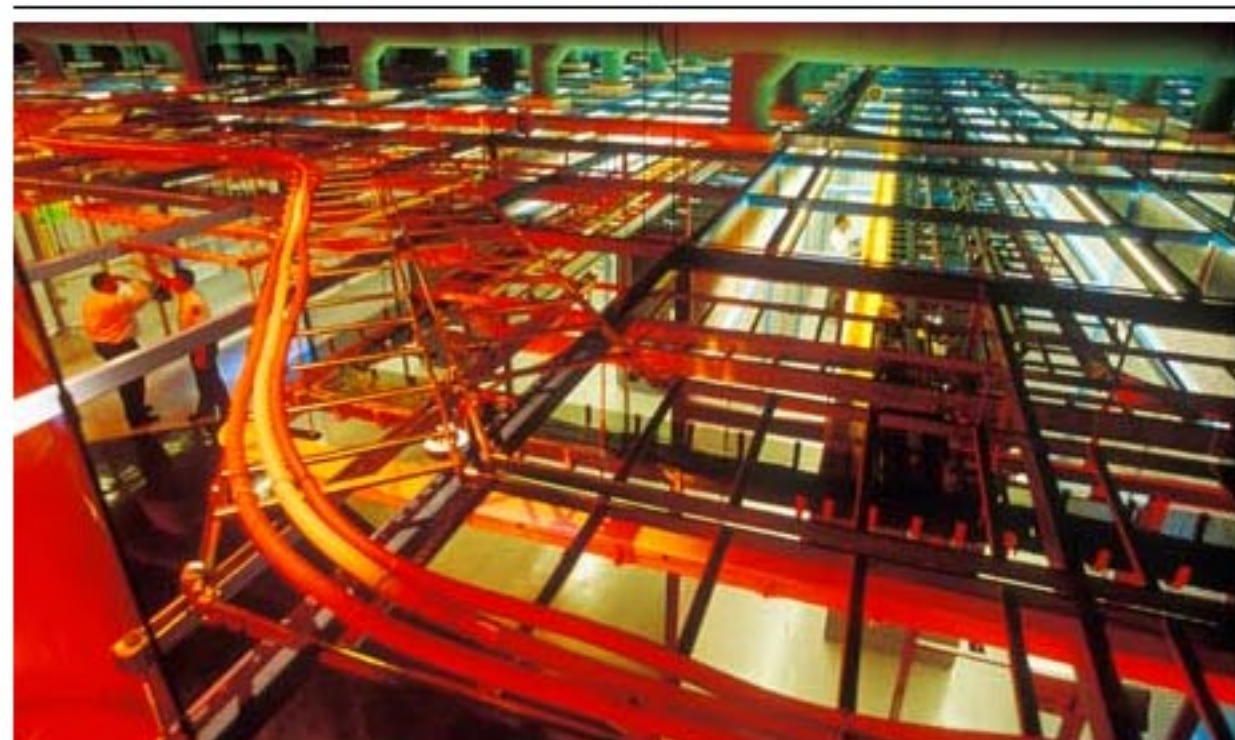


# Father Roberto Busa: one academic's impact on HE and my career

Scholar **Dr Ernesto Priego** explains how the pioneering work of the late computers in humanities academic has influenced him



An internet highway of cables links routers and servers: Father Roberto Busa anticipated Ted Nelson and Tim Berners-Lee in connecting the dots between informatics and the written word, says Ernesto Priego. Photograph: Bob Sacha/Corbis

I did not find out about it reading the newspaper. In my inbox, I got a [Google alert](#) for the phrase "[Roberto Busa](#)". I read it online, first in Italian, then a translation in English. Almost right away two eminent digital humanists, one in the US, one in Britain, had retweeted it. Father Roberto Busa, 98, [pioneer of humanities computing](#) (often also called [digital humanities](#)) had died.

There are many reasons why the life and work of Father Busa should be of interest to those involved in higher education today. As Stefano Lorenzetto said in the [Vatican newspaper L'Osservatore Romano](#):

"If you surf the internet, you owe it to him and if you use a PC to write emails and documents, you owe it to him. And if you can read this article, you owe it to him, we owe it to him."

This might seem hyperbolic, and most people would first think of [Ted Nelson](#) and [Tim Berners-Lee](#) as the "founding fathers" of hypertext and the internet. But it is true that Father Busa, an Italian Jesuit priest and theology scholar, anticipated them in connecting the dots between informatics and the written word.

Born in 1913, Father Busa started harnessing computational power for linguistic [research](#) in 1949, after submitting his PhD at the [Pontifical Gregorian University of Rome](#) with a thesis on "interiority" (based on the uses and meanings of the preposition "in") in Thomas Aquinas. It was then that he began a long and fruitful collaboration with IBM computers in the US.

The goal was to use algorithmic processes for linguistic analysis in order to produce an index of the 1.5m lines (9m words in medieval Latin) of the complete works of Aquinas. At the time, no one thought that machines designed for numeric computations could be used for the study of written texts and linguistic concordances. The collaboration between [Thomas Watson, founder of IBM](#), and Father Busa ushered a new era of humanities research. The result, the Index Thomisticus, has been available [online](#) since 2005.

Father Busa was an inspiration for me and many others because he was two things at the same time: a "traditional" humanities scholar, member of a very old learned society who devoted most of his life to a body of texts. He was also an innovator, breaking the borders between the humanities and informatics and also between disciplines, cultures, languages and countries. As a theology scholar, he did find "the spirit in the machine", and used them "to illuminate the human record".

In my view there are at least four points professionals in higher education can learn from Father Busa:

**Specialisation:** He focused on a specific topic, but seeking interconnections with other works and disciplines.

**Innovation:** Busa thought outside the box, establishing multidisciplinary research teams and [international](#) collaborations with the private sector outside academia, his own country, language, and initial area of expertise. He pushed the boundaries of existing technologies and methodologies.

**Tradition and lifelong learning:** He belonged to the lineage of the medieval scribe and scholar, and sought ways of keeping that tradition alive by embracing modern methods and continuously updating his work as new technologies and methodologies became available.

**Scholarly communications and public engagement:** He was always "in the loop" and used constantly evolving technologies to communicate his research and [publicise it outside the academic community](#), even before computers were everyday gadgets and in spite of the highly specialised nature of his work.

Dr Melissa Terras, reader in electronic communication in the Department of Information Studies at UCL and deputy director of the [UCL Centre for Digital Humanities](#), told me about Father Busa's influence on her career: "He was one of the first to spot that computers could be used to help us organise knowledge to study the human condition, other than just number crunching, and that bravery and conviction, coupled with dedication and application, has inspired humanities computing scholars since.

He was also a master in making sure his story was told, and that people knew the impact of his research: a truly modern scholar. He was happy to respond to any queries about his research, which was amazing for us younger scholars."

Father Busa's legacy lives on. The highly publicised "[Culturomics](#)" project, in which researchers used a 500bn-word data set from Google-digitised books to analyse word occurrences between 1500 and 2008, bears all the influence of Busa's pioneering work.

Every three years, the Alliance of [Digital Humanities Associations](#) presents the [Roberto Busa award](#) "to recognise outstanding lifetime achievements in the application of information and communications technologies to humanistic research". Because of his commitment to innovation and the blurring of boundaries, Father Roberto Busa is an excellent role model for all kinds of higher education professionals.

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