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Early Years of Computer Science at the University of Padua

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I. Background

The 2021-2022 academic year has been an important milestone for the University of Padua, because it was the year in which the University turned 800. In the years immediately preceding this event, various projects and initiatives were launched to reflect on the history of the numerous disciplines, which are studied and taught in a generalist university such as that of Padua. Some of those projects have been launched to prepare publications on the history of faculties, institutes and departments, while other projects have had the objective of reconstructing the history of a specific discipline within the University of Padua.

II. Findings and Implications

Computer science is a recent discipline and perhaps for this reason people had never bothered before to know its history within the University of Padua. In 2019 it was decided to start a project to reconstruct the history of computer science in the University in view of its 800th birthday and thanks to the solicitation of the History of Computer Science Working Group of the Italian Association for Computer Science (*Associazione Italiana per l'Informatica e il Calcolo Automatico*, AICA) which besides promotes the collection and online publication of documents illustrating the history of computer science within the Italian universities. Within that project a specific research was launched at the end of 2020 following a contact from Dr. Silvio Hénin, then coordinator of the AICA Working Group, who proposed to work together to bring out the story of a computer built at the University of Padua in the years 1950/1960, of which we knew the existence, but nothing was written about the process of constructing it. The history of the computer, if a computer had actually been built at the University of Padua, was of interest to the history of Italian computing, because it would have been the only computer built at an Italian university in addition to the well-known CEP computer built at the University of Pisa [1]. In fact, after those early years, computers have always been built by companies outside the universities. The research has made it possible to find original and hitherto unpublished documents in the Historical Archive of the University which helped to reconstruct the innovative initiative of the effective construction at the Institute of Statistics of the computer in the years 1958-1961 [2]. Since the computer never had an official name, we called the computer MS, which may stand for *Macchina degli Statistici* (Machine of the Statisticians), but also *Macchina Seriale* (SerialMachine) since it was inspired by the APE(X)C calculator [3]. Additional documents unpublished up to now have emerged which demonstrate that the MS construction was started thanks to Albino Uggè, professor of statistics at the University. These documents prove that Uggè did not limit his scientific activity to statistical sciences and demonstrate how he had a wide-ranging and interdisciplinary scientific vision. The specific initiatives that are illustrated by the documents found are those that have contributed to: the construction of the MS computer together with the establishment of the University statistical consultancy and calculation centre, within which the MS would then be used; the establishment at the University, together with other professors, of the University Computer Center where to host a computer to be used by the whole University; and finally, together with Olivetti, the establishment of a Calculation and Accounting Center capable of providing data processing services as well to local authorities [4].

Uggè has also contributed to the promotion and birth of AICA. In fact scholars like him interested in computer science began to feel the need to meet to discuss the issues that were emerging as specific to the new discipline. Then the idea was born to create a specific association and for this reason a Promoting Committee was set up in March 1960 which in December 1960 convened a first assembly to outline the statute for establishing the association. Uggè was elected vice-president of the Provisional Executive Council and helped kick-start AICA's operations in 1961.

We can then say that Uggè has shown the ability to open up to the future, having understood that computer science would become an important discipline for our society; and it is for this reason that he has contributed to initiatives for the construction or acquisition of computers that would have made it possible to acquire the knowledge to effectively use them for automatic data processing within the university but also within companies and local authorities.

References

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[2] M. Agosti, A. Cammozzo, F. Contin, and S. Hénin, "Building a Computer at the University of Padua, 1958-1961," in *IEEE Ann. History Comput.*, vol. 45, no. 1, pp. 77–85, Jan.-March 2023.

[3] A.D. Booth and K.H.V. Booth, "Automatic digital calculators," London, Butterworths, 1956, 2 ed.

[4] M. Agosti, "Albino Uggè: uno statistico illuminato (1899-1971)," in *Fatti e figure dell'Università e dell'Accademia di Padova dal Seicento ad oggi*, 2023 (in print).