
Weaving the Net: Places of Computing and their Political, Social and Technical Interconnections

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Abstract

The first computers were solitary machines located in laboratories and operated mostly by their creators. During the 1950s and 1960s computer centres were established to house these machines and specially trained operators were running these devices filling the gap between the constructors and the users of these artefacts. But what processes and boundary conditions formed these computing centres? What kind of people worked at these places of computing and how did these centres interconnect or not?

This historical case study will examine the development of high-performance computer centres in the German state of Baden-Württemberg from the 1960s to the end of the last century. It will cover the political, social and technical aspects of their development. The developments in Baden-Württemberg were chosen as the field of study because right from the beginning this region spearheaded the quest for high-performance computing in Germany. Created from two rivalling states after the Second World War, Baden-Württemberg has a political culture where a delicate balance of power between its two constituents has to be maintained. This is reflected in the allocation of resources and the formation of (super)-computing centres in this state. Starting in the late 1970s a sometimes painful process started where the existing scientific computing centres began to collaborate more closely and a hierarchical structure regarding the size and technical potentials of these centres emerged. This structure was reflected by the interconnection, both on a structural and a technical level (communication networks), between these centres which led to a two tier structure of high performance computing in the whole of Germany with a small group of three centres at the top.

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