Optical computing is a very interesting 60-year old field of research. This paper gives a brief historical review of the life of optical computing from the early days until today. Optical computing generated a lot of enthusiasm in the sixties with major breakthroughs opening a large number of perspectives. The period between 1980 and 2000 could be called the golden age with numerous new technologies and innovating optical processors designed and constructed for real applications. Today the field of optical computing is not ready to die, it has evolved and its results benefit to new research topics such as nanooptics, biophotonics, or communication systems.

Thus, optical computing systems could offer significantly higher computational speeds for parallel data processing than the currently fastest electronic systems. The recent revival of optical computing technology is due to an ever-increasing need for computational speed, coupled with the rapid increase in global demand for Internet access, television and video services, and next-generation broadband.