

## The evolving Role of Software

Now a days software takes a dual role. It is both a product and a vehicle for delivering a product. As a product it delivers the computing potential embodied by computer hardware or more broadly by a network of computers that are accessible by local hardware. Whether software resides within a cellular phone or operates inside a mainframe computer, it is an information transformer – producing, managing, acquiring, modifying. Displaying or transmitting information that can be as simple as a single bit or as complex as multimedia presentation. As the vehicle for delivering the product, software acts as the basis for the control of the computer, the communication of information and the creation and control of other programs. Software delivers the most important product of our time information. It transforms personal data so that the data can be more useful in a local context; it manages business information to enhance competitiveness. It provides the gateway to worldwide information networks, and provides the means for acquiring information in all its forms.

The role of computer software has undergone significant change over a span little more than 50 years. Dramatic improvements in hardware performances, profound changes in computing architectures, vast increase in memory and storage capacity and a wide variety of exotic input and output options have all precipitated more sophisticated and complex computer based systems. Sophistication and complexity can produce dazzling results when a system succeeds but they can also pose huge problems for those who must build complex systems.

The continuous evolution of software happened as follows

1. The impact of new software in 1970s on our culture was called “new industrial revolution”
2. The advent of microelectronics in ICT predicted the transformation as “the third wave of change” in human history
3. Information and knowledge became the focal point of power in twentieth century.
4. The society evolved in electronic community created by networks and software became the key to knowledge interchange throughout the world
5. Later the actual power shifted to computer and software from government, educational organizations, industries, economy and military and was called democratization of knowledge.
6. Information technologies played pivotal role in reengineering of corporations.
7. During the mid 90s , the role of computers were demonized by some of the famous authors too emphasizing the legitimate concerns and ignoring the benefits
8. The prospects of software professionals were reevaluated in late 90s and that time was called as rise of American programmers.
9. In 2000 the whole software focus shifted to Y2K virus.
10. In early 2000s there was a major impact of 9/11 on IT industry and community.
11. Then the time came for various software simulations
12. Then was the era of semantic web ie the various software which were helping to interact with each other in social media.
13. A paradigm shift in software engineering process and SDLC cycle as the team has replaced the lone person in software team.