

HUMAN PERCEPTIONS AND COMPUTER ARCHITECTURES

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We operate in a heterogeneous set up interacting with people of different ages and generations. Opinions and approaches differ from people to people. This would have been experienced by every one of us in real life situations. Now let us see how these real life perceptions have a striking similarity with different computer architectures.

People in the middle age group have to deal with elder generation on the one hand and with younger generation on the other hand. Their present stage of evolution is such that they want to convincingly carry along with them both the elders and youngsters. The open minded among them try to consult both elders and youngsters when important decision making situation comes. This approach can be compared to a Distributed System which gives equal importance to all nodes where all the nodes get updated simultaneously. Whereas a sole decision making authority can take decisions fast, the process of consultation involves time because consensus has to be arrived at after threadbare discussion. Also, lot of energy is spent in the process. This is true of the distribution system also which is said to incur higher overheads in computer parlance.

Let us see the reaction of the elder generation at this juncture ! They tend to dismiss the distributed system because it dilutes the powers they would like to possess. They think that Client - Server architecture is the best prescription, of course, themselves being on the server

side. The other name for the client server architecture, viz, Master-Slave architecture (server is the master; client is the slave), best explains the set up. That is, instructions will always be given by the server and clients have to execute them, though the clients have independent brains (ie. processors) and can act independently within their local jurisdiction.

When the middle generation people are not ready to accept this set up and choose to differ, elders murmur that they had been silently and totally obeying their elders. Their perception is that the client-server architecture which they want to implement is Heaven compared to their own experience as dumb nodes in the Mainframe architecture practised by their elders. The dumb nodes in the mainframe architecture do not have any processor and they cannot do anything independently.

Having faced confrontation from the side of elders, the middle generation people turn to the younger generation side proudly extending their favourite (distributed system like) consensus idea hoping that they will be widely appreciated for their magnanimous gesture. But alas ! The younger generation does not want to be disturbed at all and want to be Standalones. Needless to say that standalones are well equipped, all powerful and independent sleek systems !

Hope the analogy explains a little bit of different system architectures.