Hardware to Software – The Great Transition

India is known as software country today. Just half a generation back there were no takers for it. Hardware was sold. Software was given away free with it. This is an editorial from Dataquest April 1989 where a push is being made to give value to software. Fortunately it happened in the next decade.

SOFTWARE, SOFTWARE ALL AROUND BUT...

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If our computer revolution has to become a reality going beyond policies, plans, and pages of computer journals; a much closer look will have to be given to the software endeavour.

Unlike hardware, where pure technological changes have been the prime movers, software remains more a work of art. As per one analogy, the processing and storage power of mainframes has increased a million fold since 1955 with no commensurate increase in price. Had the automobile industry followed a similar trend, the cost of a Mercedes Benz today would be around $3 and would run 3 million miles to a gallon. If such developments had taken place, it would have been unfortunate - to say the least. Just imagine how many more cars would have been purchased and what would have happened to cities and the environment across the globe. Probably, we would all be dead due to carbon monoxide poisoning. No such terminal effects have come about by the computer technology explosion, but most certainly unlike automobiles, here we have more technology and less expertise to use it. Worldwide there are indications of a software wind blowing - though not from the East. Between 1987 and 1992 the software percentage of the total market is estimated to go up from 14% to 23%. At the same time, the size of the market itself would go up from $222 billion to $368 billion. These figures are often referred to in the Indian scenario but then it is like comparing the moon to an orange - it is essentially different worlds that we are talking about.

The smaller size however, does not make the importance of software less to us. But what has been done to develop this area, which in my opinion should be termed a national resource?

For the hardware vendors, software has been the unwanted step child. It has been traded away freely (pun intended) at the negotiating table. Selling of a few pieces of machinery has been the objective which has been ruthlessly followed. If this had been done out of ignorance, it may have been understandable - though not excusable. What is not understandable nor excusable is the fact despite realising the importance of software it is relegated to the bottom of the priority list. The fact still remains that sooner rather than later the chickens will come home to roost. Profits in the hardware market are shrinking, sales will follow the same trend.

Users of computer systems are an equally guilty party. While they do not mind paying for the so called better, faster hardware, software is another issue. Talk to them about paying for good, efficient software and all you get is the boot. Pirated stuff is good enough when they want a package. If software has to be custom-built then there's nothing like an eager cheap programmer who can supply everything, so they think. While these paths offer short term advantages, in the long term they only lead downhill. Packaged software is good only if packages keep improving and are available. Who will develop and market them, if no one buys them? Common sense provides the correct answer, but then common sense is the prerogative of only a few! Custom software can be developed by a programmer or the friendly neighborhood consultant, but does it work? Can it be upgraded? How long will it be before it becomes bug free? It is time that users start paying willingly for the stuff they use. If not, there will be nothing to buy - and pirate.

The government can help in promoting software but it cannot be the developer, seller and buyer for it. Unfortunately that is the role that many apparently want it to play. Nothing could be more foolish than this expectation. Having said that, it should be added that there are many other areas which the government can and should look into. For a start it should implement stated policies in relevant time periods. Right now changes come faster than implementation. Secondly, it should give a more serious look at the domestic software market in addition to exports. We are not going to be world standard exporters without having a strong domestic market. Some promotional efforts within the country are also required. Third, it should spend some time and effort in educating itself about software. This applies specifically to those who take software related decisions. Many of the departments other than DoE do not understand software. Under such circumstances it is not easy to take correct decisions.

That leaves the last community - that of software developers. For all their efforts they have been unable to market themselves or their products. So far they have not been able to pass the value for money test, which all users eventually apply. Whether this is due to bad products or bad marketing has to be found out. It is definitely true that no large organisations, whether in computers or otherwise, have turned their attention to the domestic software market. What would be the scenario, if say a HCL or a Hindustan Lever turned its marketing skills towards the software arena? While many large groups eye the export markets they turn a blind eye to a large market in the country itself. For that, we wait for a Microsoft or Ashton-Tate to come along and develop the market for us. Could the situation be more ironical?

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