We are in the era of AI. There is a global thrust on “AI for all” and “AI everywhere”. But are we ready for these? Apparently, there is an implicit belief in philosophies like “bigger the better” (bigger data sets or bigger architecture with millions of free parameters) and “the data say all”. Such approaches have been found to be very successful too. But are we in the right direction? Are all real-life problems big data problems? Does a child need thousands of examples to learn distinguishing between cows and dogs, for example? Certainly NOT ! In this talk, I shall make a cursory tour through the evolution of AI and then discuss some of the major issues that demand attention. For example, most of the neural network (deep or shallow) based systems are neither comprehensible nor biologically plausible. Could these cause problems? Well, they at least raise some important concerns. In my view, any intelligent system should have, at least, attributes like simplicity, transparency, fairness, explainability, trustworthiness, sustainability, and its biological plausibility, if that makes sense. Ideally, we should try to realize all these attributes in any AI system, but that would be very difficult. Moreover, obtaining universally acceptable definitions for some of these attributes may not be an easy task. There are ethical and social issues including misuse of AI. I shall discuss some of these issues. We shall see that we are far from having satisfactory answers to several of these issues. Finally, I shall illustrate how one of these issues can be partially addressed taking some inspiration from cat’s visual cortex.