

The main reason humans aim towards Artificial General Intelligence and Robotics is to enhance human environment, community, and society.

Assumption: Enhancing human environment leads to enhancing human community, which then leads to enhancing human society.

Consider a theoretical machine  $TM$  that is not trained to act intelligently. Suppose the  $TM$  output/next-state is mathematically defined as

$$TVtoR\left(DPofM1\&V\left(DPofM1\&M2\left(LS(TtoV(input)), LS(TtoV(input))\right), LS(TtoV(input))\right)\right)$$

Where:

$TtoV(X)$  is a function for transforming  $X$  to vector,

$TVtoR(Y)$  is a function for transforming vector  $Y$  to representation  $R$ ,

$LS(Z)$  is a function for transforming vector  $Z$  to Latin Square representation,

$DPofM1\&V(M_1, V)$  is a function for calculating dot product of matrix  $M_1$  and vector  $V$ ,

$DPofM1\&M2(M_1, M_2)$  is a function for calculating dot product of matrix  $M_1$  and matrix  $M_2$ .

Input of  $TM$  is from human environment and  $TM$  current-state. For  $TM$  to be artificially generally intelligent, the environment wherein  $TM$  resides must be enhanced. The enhancement ensures  $TM$  output/next-state is the target output/next-state.

Enhancement Example: Let  $TM$  be a robot with target output/next-state of turning pages in a book while looking at information on each page. This target output/next-state is basically the act of study. The human environment wherein  $TM$  resides is enhanced to ensure  $TM$  output/next-state is this target output/next-state. Thus, the human environment is enhanced by aim toward Artificial General Intelligence and Robotics. And by above assumption, human community and society are enhanced as well.

Currently, I think the best target output/next-state for a robot machine is the act of study, because through studying I acquire knowledge to act intelligently in human environment, community, and society.