An evolutionary model for Turing machines

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The fact that a large fraction of eukaryotic DNA is non-codifying ($\approx$ 98.5% in Humans) is a longstanding puzzle in biology. On the other hand a symilar phenomenon has been observed also in Genetic Programming with programs growing significantly in size during an evolutionary run in a fashion unrelated to significant improvement in fitness. This coincidence suggests that this could be an intrinsic phenomenon in systems evolving by mutation, selection and reproduction. We investigate this hypothesis in our evolutionary model for Turing machines.