There is a connection between

- Turing machines (3 spaces)
  - (1) state space / state data structure
  - (1) linear / list space w/ ∞ Nodes
  - (1) binary enom data struct w/ each Node

- Data structure transformation
  - turing machines can perform any calc
  - input and output data structures are on the tape
  - the 3 spaces (statemachine, tape and state at position) are evaluated together to transform data
  - ~~Complex~~ transforms from complex structure to linear structure happen when providing input to tape and for receiving output
  - the state table in a turing machine must encapsulate
    1) transform from linear tape to meaningfull structure on input
    2) transform that alters the complex structure in some way
    3) transform that converts meaningfull structure back to linear array

There is a connection between (cont)

- Traversing data structures + addressability
  - o the turing machine operates by traversing data stucture 1 to produce data structure 2

- Compression
  - o the transform nature of turing machine consisting of
    1) input data
    2) state machine capturing complex data structure construction in its definition

  Seems very similar to compression in terms of
    1) creating a machine that can produce a data structure from minimum set of variable data
    2) Storing only the variable data