**Code and Poetry: Trees and Rhizomes (networking) 11-17-14**

* The internet is not all that decentralized
  + To what extent is the internet decentralized/centralized? To what extent is the literary decentralized/centralized?
* We usually think of texts as units, but if you look at the material substratum it starts getting much more complicated
* Proliferation of drafts – we normally take that and call it the same text (a family of texts, some very similar and some completely different)
* Git/version control: imagine a timeline/vector, lay out the proliferation of drafts along single unified timeline
  + Organize mess in a linear fashion
* NOTE: lab notes due at end of semester in plaintext/markdown Git repository (likely 1 doc per session). Start working on that.
* **What is a text?**
* A text is some form of structure – trees and rhizome (Deleuze), tree=bad, rhizome=good
  + - Write rhizomatically – not linearly, jumping from topic to topic
    - Do not seek logical unity
    - There’s a structure in the rhizome – density at certain points (heat zones), but it shifts
  + A tree: think of family tree structure
    - A way of classifying the world – can identify every possible species
  + To some extent these structure types/systems are just models, but to some extent they demonstrate textual order
    - Order is physical structure, but abstracted from its physicality
    - Ordering structures are in weird ontological space
  + We organize texts in root-like structure: Book, chapter, section, page
    - Tree structure (Deleuze): bad because in the structure there’s a form of control – structure organizes the world – data, language, people
    - Arrangement is not simply a model, but a real/physical thing
    - D and G want to break apart the root-like tree structure
    - Military, school, authoritarian structure
  + Rhizome model is a different model of control
    - Decentralized
    - Breaking away from authoritarian structure – their writing mirrors this decentralized, anti-authoritarian, rhizomatic structure
  + On some level, the book is a structure
    - Remove content from a book and you’re left with some structure
* A book/text is language
  + There was a moment where literary scholars were looking for intertextual connections (hypertexts)
    - People would find a quote in a text, find out which document it comes from
    - Creating network of various documents
    - Sending you outside of the page into other texts
    - Intertextuality as field of language that’s constantly referring to other stuff
  + Problem with model: words are never my own (I don’t make them up)
    - When writing academic works I cite big chunks of other peoples’ works
    - But when is an idea my own? How long does a quote have to be for it to be a quote that’s cited? (Two words? Four? Seven?)
      * Borrowing every word/combination of words from somewhere
      * At what level do we have to acknowledge where we’re getting it?
    - Language constantly alludes to a million other things
* Text is material substratum
  + The paper, the drafts/versions
  + We’ll get more into materiality with the structure of the internet
    - Restriction of movement: censorship
    - Physical layer restriction on what you can access
* At each level (of textuality) there are different things at stake
  + Is the pipe through which you try to send a document free from interference?
  + Just because there’s centralization doesn’t mean there’s control at the level of structure or language
* Each level can be visualized as networks
  + Network diagrams: Citation network analysis
    - A – B
    - Nodes (A and B) are people, the edge (-) represents some sort of connection between them – need to figure out what they represent to understand the networks
    - Can say that the size of the node represents something, need to ask yourself what it represents
      * Size could represent number of followers (on twitter)
    - Nodes can have directionality
      * A followed B (A 🡪 B)
    - Length of edge could mean something
      * A – B vs A ----- C: A and B is mother and child vs A and C is mother and her friend
    - Nodes can have different textures (colors)
      * Darker color node means older
      * A is older than B
    - Thickness of edge
      * Every time A and B like each other’s stuff on facebook the edge becomes thicker
    - However, qualities can be arbitrary (like length of edge, etc.)
      * Dangerous because you’d assume that length of edge means something (far apart on chart means far apart intellectually), but it can be just arbitrary
      * If there’s no key you can’t assume they mean something
    - Nodes are articles, edges are citations in citation network analysis
      * Can be laid out neatly or rhizomatically
        + Rhizomatic is not understandable for humans
        + Physics based model: layout algorithm – when two sources cite each other they attract, when they don’t they repel. Every two sources that connect pull together, every other pulls apart
        + Through this physics based model it turns into the neatly organized/understandable model (clusters)
    - A lot of assumptions go into clustering model
      * Layout algorithms can make it look completely different: an aesthetic choice (rather than methodological)
        + Layout algorithm has no assumptions in terms of knowledge, its only assumption is that humans like clusters and they don’t like hairballs
        + Can tweak the forces of attraction/repulsion, absolutely changing the shape of the network
        + Layout is quantitative and represents a structure in some sense, but it’s heavily interpretive and often arbitrary
    - Is the clustering model a rhizome or a tree?
    - Not scientific methods – won’t spit out the truth
      * Instead interpretive/theoretical
      * In literary studies there tends to be a cluster in the middle or sparsity – not much clustering
        + Sparsely populated fields
      * Tertiary nodes: one literary critic cites Dante, another does as well, they don’t directly cite each other but are connected through tertiary node
        + In the humanities people generally connect through tertiary nodes, rarely cite each other
      * Surface phenomenon, but trying to find depth in it – the underlying deep structure (does this reflect or literary practice? How?)
      * on the level of language/citation: unclear if tree- or rhizome-like
      * on the level of structure: tends to be tree-like
      * on the level of materiality: the internet is not decentralized/rhizomatic on the level of infrastructure
        + you cannot directly connect to another person – you need routers/relay switches to connect you – you communicate with it, it communicates with some larger entity until you get to some gigantic packet switchboard which sends it on (to smaller entities) until it gets to the person you’re trying to connect with
        + surveillance, political control, privacy, censorship is done at a higher level which is not under democratic control (not just between people)