The power of networks

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- I want to talk today about the power of networks and the challenge of mapping and increasingly complex word.

- Trees: are very important knowledge classification systems.

- Mapping a variety of aspects, such as blood ties between people.

- The tree metaphor. It spread the human desire for order, for symmetry, hierarchy, simplicity, balance, unity.

- 1:43 From trees to Networks…. "In contrast to centred systems with hierarchical modes of communication and pre established paths…

- Las redes no son capaces de acomodarse, carecen de valor explicativo, o se quedan cortas como herramientas explicativas.

- … The Rhizome is an acentred, non hierarchical, non signifying system without a general organising memory or central automaton defined solely by a circulation of states.

- Warren Weaver Organised Complexity 1948

- Divided modern science in three different stages, the first one covering the 17, 18, and 19th century.

- Problems of simplicity, scientist were concern about one element influencing the other,

- En la siguiente etapa, los científicos se dieron cuenta de que no es tan solo un elemento que influencia a otro…

- El mundo era: "Fairly chaotic fairly random"

- First half of the 20th Century. Disorganised complexity.

- The end of the 20th century and current… Organised complexity. Many elements interacting …

- The way we see our brain, we used to think about the brain as a modular centralised organ.

- El cerebro compartimentalizado en diferentes áreas que eran responsables por diferentes acciones y comportamientos. (4:07)

- But is not central at all.

- The way we classify knowledge, La Plus Grande Encyclopédie. Knowledge as a tree.

- Branches have no connections.

- 5:35 Muestra dos mapas de Wikipedia.

- Wikipedia, of course all of you know it is really one of the largest rhizomatic structures ever created by man.

- Nos muestra (5:51)

- que el conocimiento esta altamente interconectado, como una red.

- También vemos estos problemas, en la forma en la que tratamos de organizarnos a nosotros mismos.

- Top-down hierarchies: Shareholders ——> Board of Directors ——> President —-> Vice-president

- The typical organisation chart… (6:28)

- Muestran la estructura en red, de desarrolladores del software Pearl, no hay jerarquía ni líder per se.

- 8:24 the web of life Vs. the Tree of Life

- Hay una estructura universal?

- 9:50 comparan como luce la estructura de la red neuronal de un ratón contra la simulación de la formación de las galaxias.

- Specialisation is for insects. You need to know a little bit of everything.

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