Images of Knowledge

Interfaces for knowledge access in an epistemic transition

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The diffusion of digital and online media and tools have long transformed the dynamics of knowledge and education. Beside the explicit and formalized knowledge that has been collected in its traditional forms (books, patents, libraries), a growing amount of information, know-how and competences are now present in different shapes. As of today, online platforms assemble incredible amounts of heterogeneous contents, different both in type and in degree of structure. They connect the final and static models inherited from print publications, the non-linear structures of hypertexts, the modular and chronological forms of the newspaper, but they also integrate the information models derived from oral culture, characterized by non-finalized, open-ended structures, closely linked to the social context of production. Explicit and structured knowledge interacts with the implicit knowledge embodied in the community. Documents and groups, books and people, information and communication, are mixed in the definition of an heterogeneous knowledge space.

While educational institutions have a hard time managing this new epistemic approach, new generations are internalizing this knowledge model in which the structures of a new orality and writing interact in the definition of a dynamic knowledge in a permanent transition between organization and flexibility, open systems and closed structures, networks and hierarchies. The nature of this discourse is not about replacing a model with another, or that the merging and leveling out of the two epistemologies; on the contrary, the dynamics of this dialogue are those of the crisis and the hybridization: structures and rules change and interact in a dialectical encounter that generates new forms, independent from both the first and the second model.

This transformation of the knowledge dynamics is showing its first consequences in the interfaces for knowledge. The changes that knowledge structures are undergoing are reflected in the of knowledge interfaces. The traditional formats of the archive, the catalog, the library are no longer adequate to single-handedly represent and provide access to the current structures of knowledge, and new images and approaches to the visual representation of knowledge are exploring new approaches for the representation of the current epistemic and technological context.

This paper proposes an analysis of the relationship that has historically linked the visual tools of access, consultation and representation of knowledge in the epistemological context of reference in terms of mutual influence. The linear structures of medieval knowledge, the hierarchical structures of the enlightenment and the structures of the industrial revolution are compared to the corresponding images and consultation interfaces. The aim is to highlight both the instrumental functions (to support knowledge access) and the epistemological functions of these historical interfaces (to propose an explicit knowledge framework).

New approaches to the representation of knowledge, and specifically those of Knowledge Cartography are presented as possible approaches to the current epistemic paradigms. Unlike the structures used over the centuries to manage knowledge by subdividing it in discrete areas, these new interfaces create a continuous substrate that doesn't divide culture in sections, doesn't create hierarchies or define order in absolute terms, but on the contrary, it focuses on the definition of relations and proximities.