

Opening Knowledge

Designing True Open Access to Knowledge.

A New Paradigm

Open access to research journals is a great step, but does not solve the fundamental problem of open access to knowledge. We live in a time of widespread intellectual affluence. Knowledge is available for free at your nearest Internet connection. Yet true open access to knowledge must include access to the *knowledge-creation process*, so that the foundations of knowledge can be visible for all to see and build upon.

Creating Open Knowledge

Knowledge creation is the process of discovering something that we did not know before. Once created, however, knowledge often loses its context—its past and its future. Theoretically, every piece of knowledge could trace its roots back to some bit of research that discovered it.

What if you could look *inside* a given fact, and see how it came into existence? And then support it with additional arguments or challenge it? Preservation of the research process is key. Preserving the history of knowledge creation enables collaboration and profound, powerful publication.

Attribution—Not Authorship

We need to focus more on attribution, not on authorship. We're researchers first, not authors, aren't we? We want to know who did the research! True open access to knowledge needs to be very fine-grained so we can know exactly who did what. Transparency is the important factor here, not so much for personal aggrandizement or scientific priority, but for accountability and traceability.

Iterating Research

Research, by nature, is iterative. It's very uncommon to come to a correct conclusion to any sophisticated research question in one fell swoop. Yet the research paper model promotes the idea that the research needs to be completely finished before it can be published. It doesn't have to be this way!

Software is not research, but the underlying development processes are very similar. The developer will piece little bits of functionality together until, eventually, he will arrive at a sophisticated product. The researcher develops conclusions in a similar manner. That product may include a nicely written paper, but all the underlying research needs to be openly accessible as well.

Determining Research Quality

Everyone should have the opportunity to meaningfully participate at every level of the knowledge-creation process. Yet we all vary in knowledge and skill levels. How can we ensure the quality of our research outputs? Peer review is a research process of its own, and should be modeled in the same way as any other research. Reviews should be shared transparently, with or without reviewer attribution.

Democratizing Research

The dynamics of the knowledge industry are changing, and we need to start working together as a team. Any concept can be explained simply if enough thought is put into it. Truth is simple. Knowledge is not the exclusive property of the professional intellectualist. The real power comes in teaching and sharing—in collaboration—where the whole is greater than the sum of the parts.

Just like the World Wide Web lets people of all skill levels participate in the Web of documents, true open access to knowledge needs to allow people—of all skill levels—to participate in the process of knowledge creation. Research must be brought back down to its roots, the avocation of the inspired and impassioned.

Get Involved

Research Cases preserve the history of knowledge creation and allow research to be shared openly across platforms and research disciplines. To join in the discussion, visit <http://researchcases.org>.

Who is Pentandra?

We are a social business with a mission to preserve the history of knowledge creation, to help transition research to the Web, to bring open research into the mainstream, and to open up the knowledge of the world.

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