SAMR and TPCK:
Intro to Advanced Practice

Ruben R. Puentedura, Ph.D.

The SAMR Model

Redefinition

Tech allows for the creation of new tasks, previously inconceivable

Modification

Tech allows for significant task redesign

Transformation

Enhancement

Augmentation

Tech acts as a direct tool substitute, with functional improvement

Substitution

Tech acts as a direct tool substitute, with no functional change

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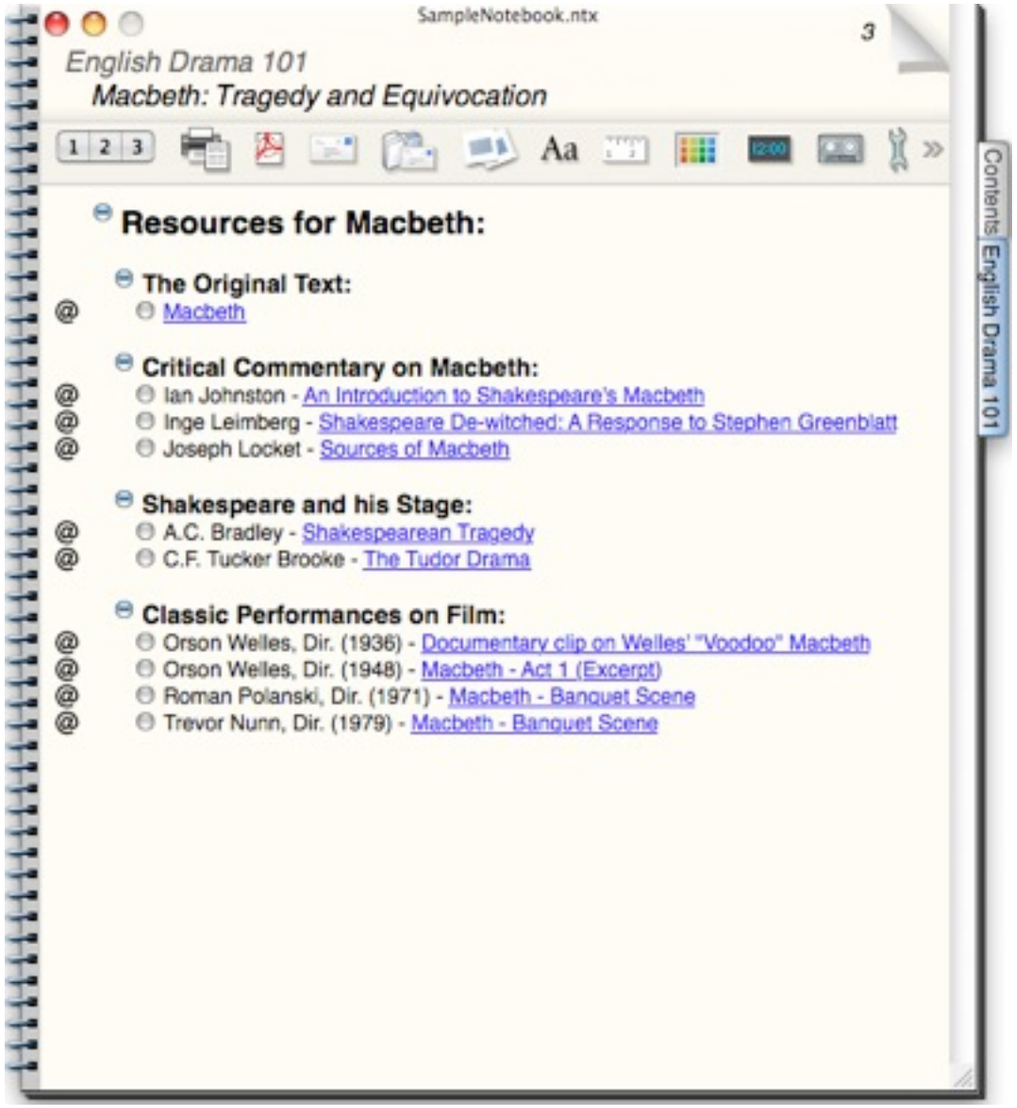

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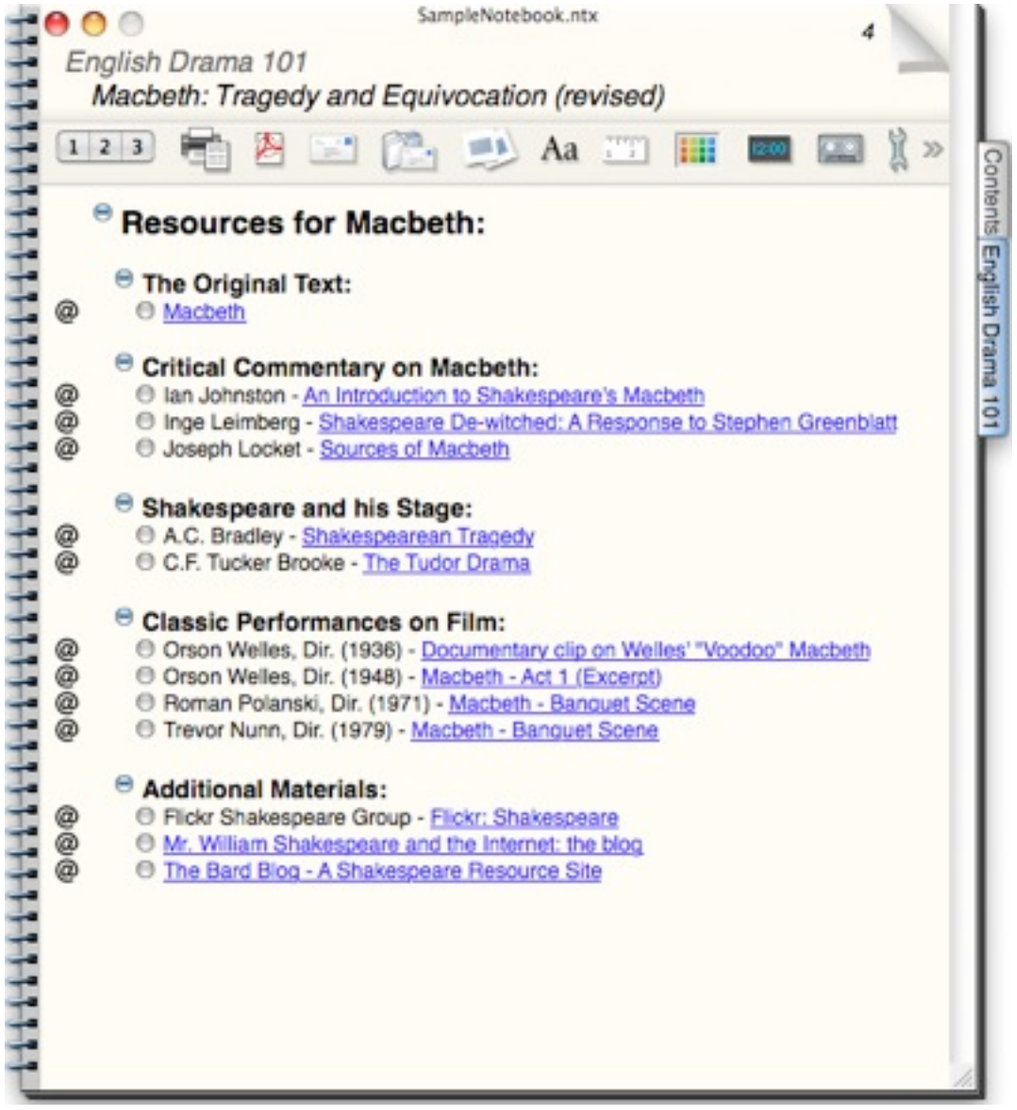

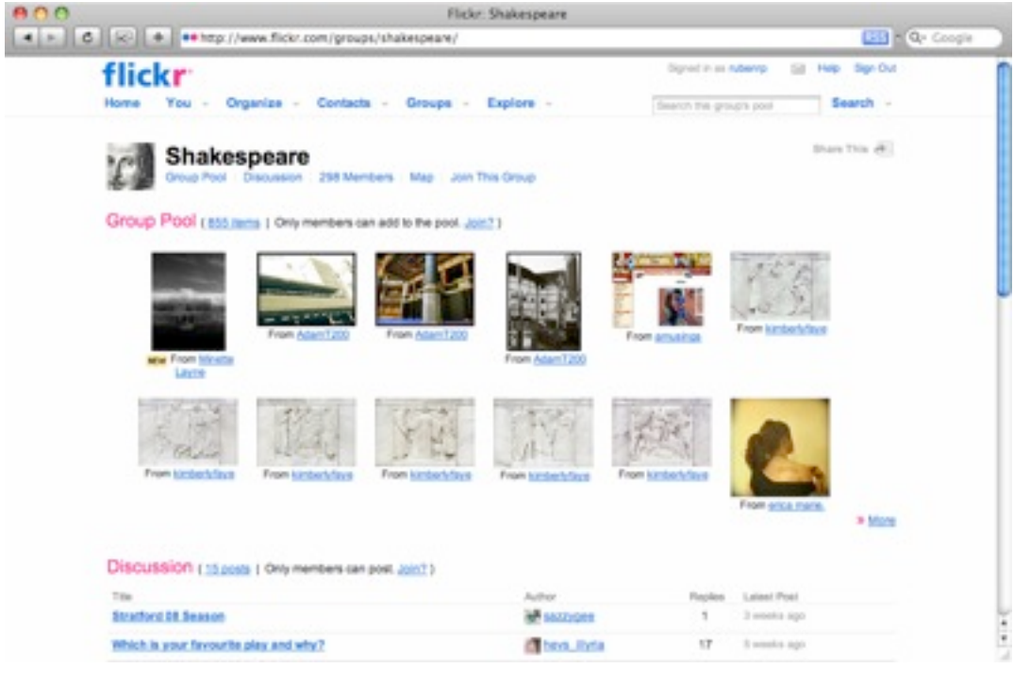

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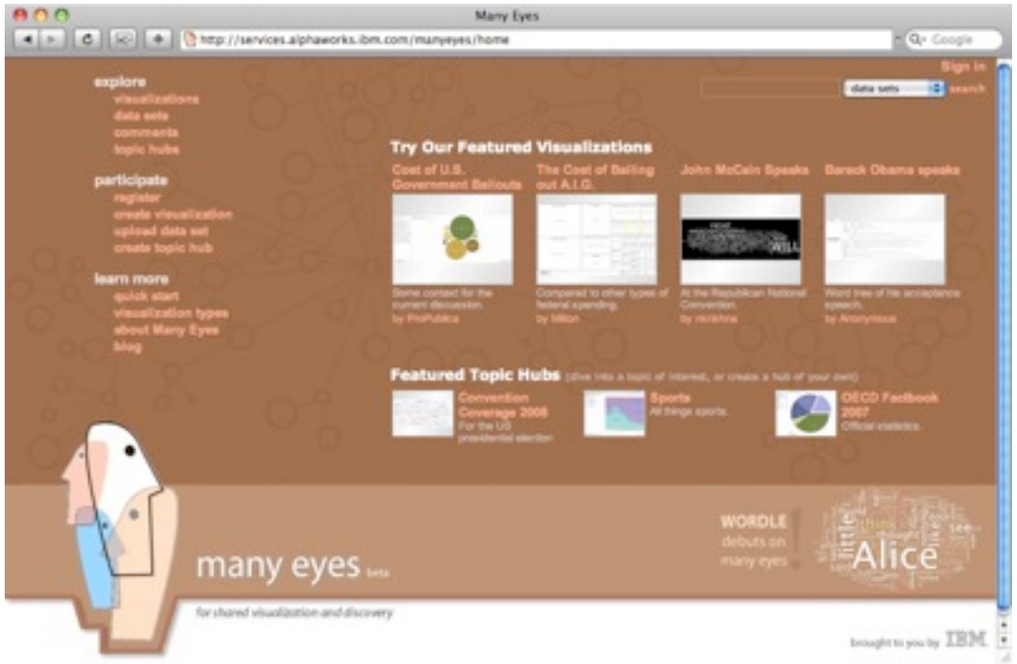

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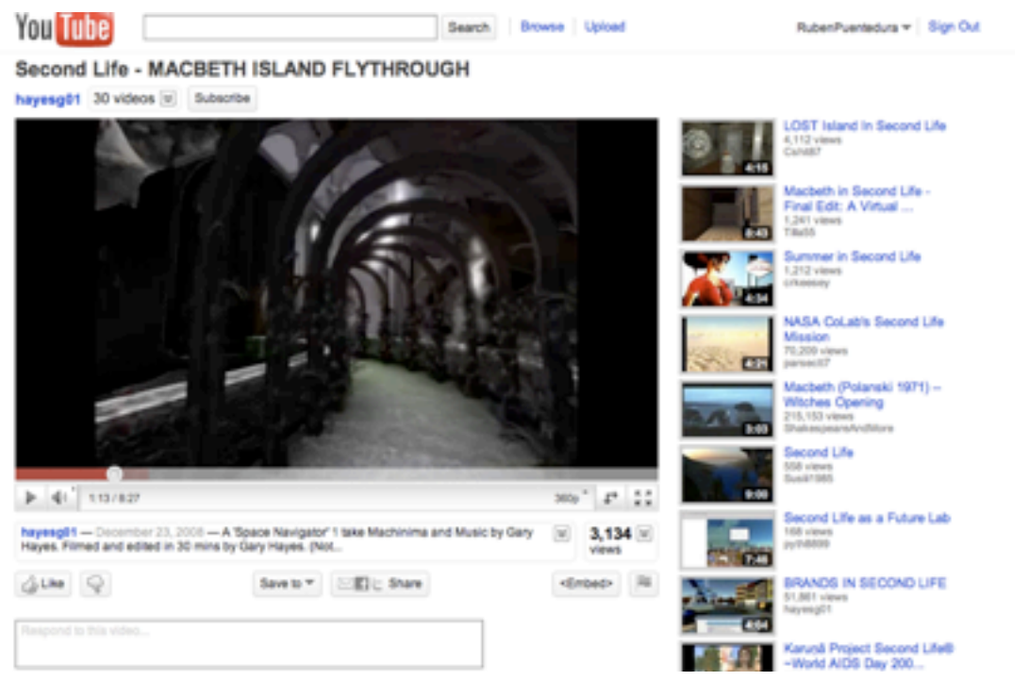

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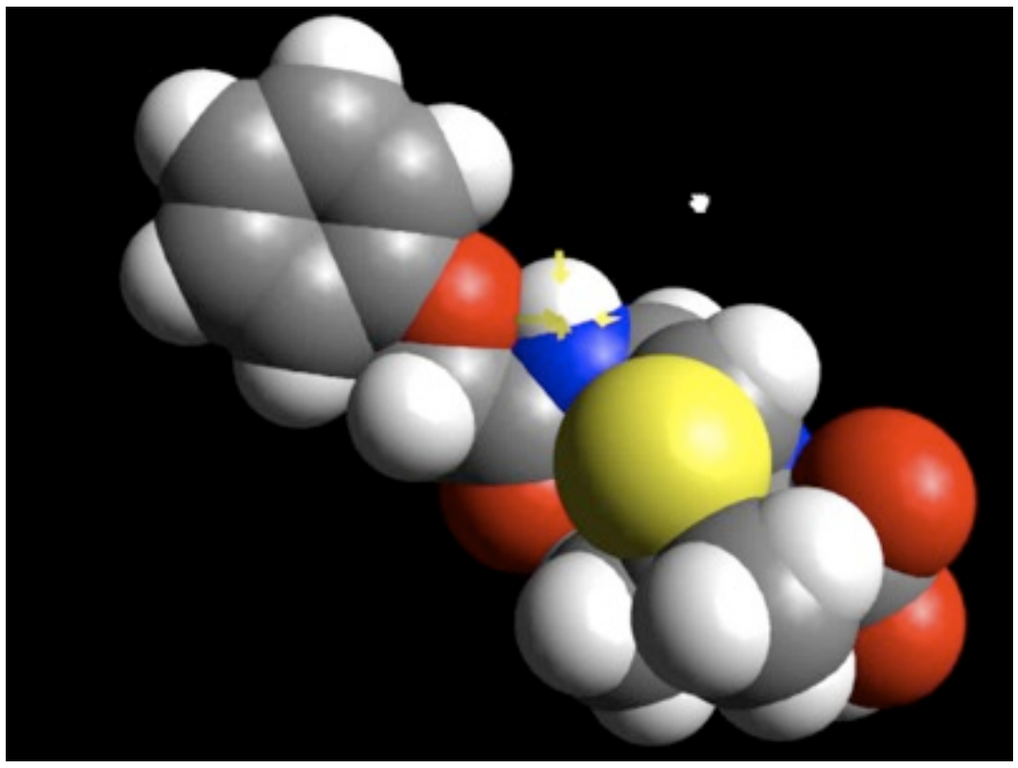

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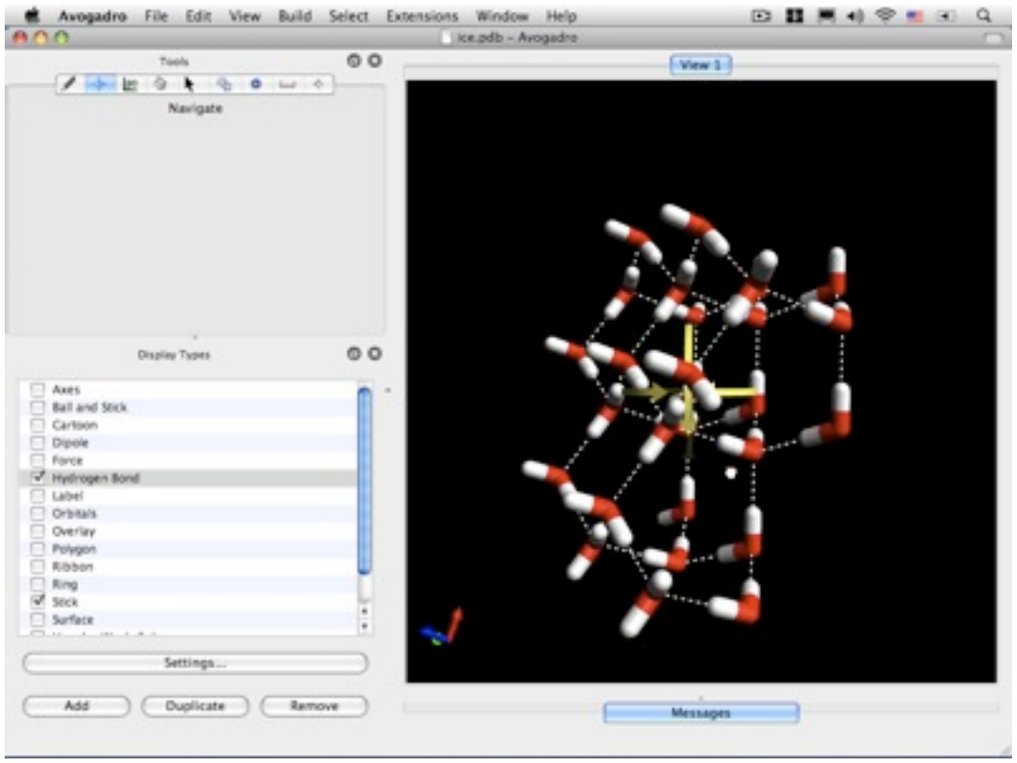

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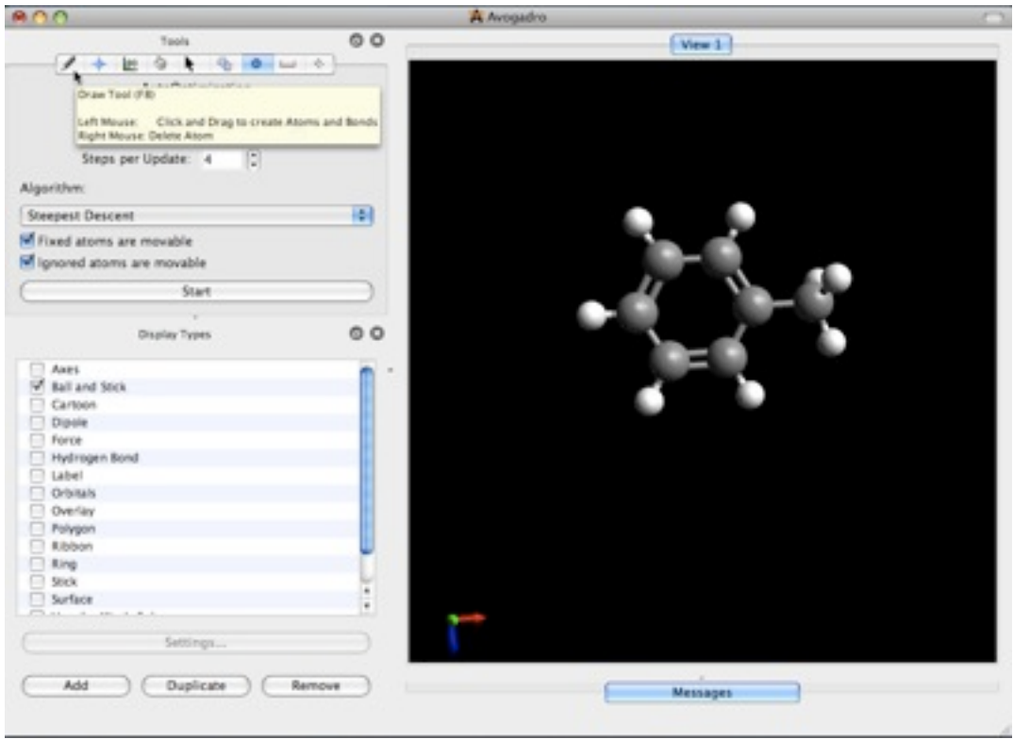

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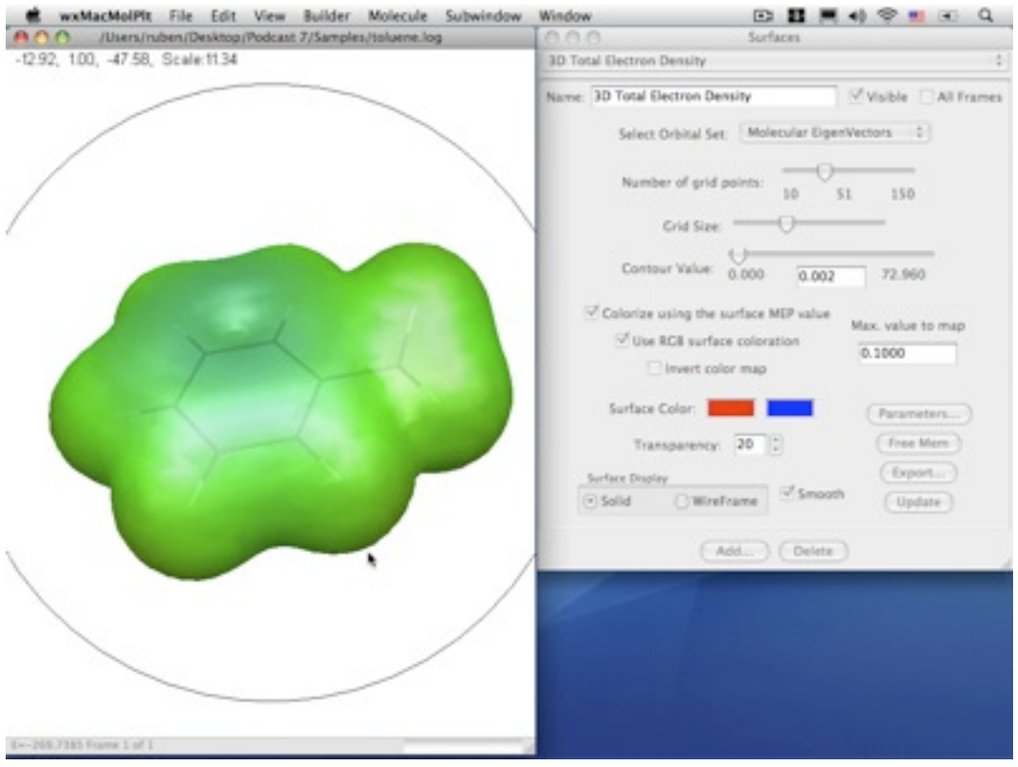

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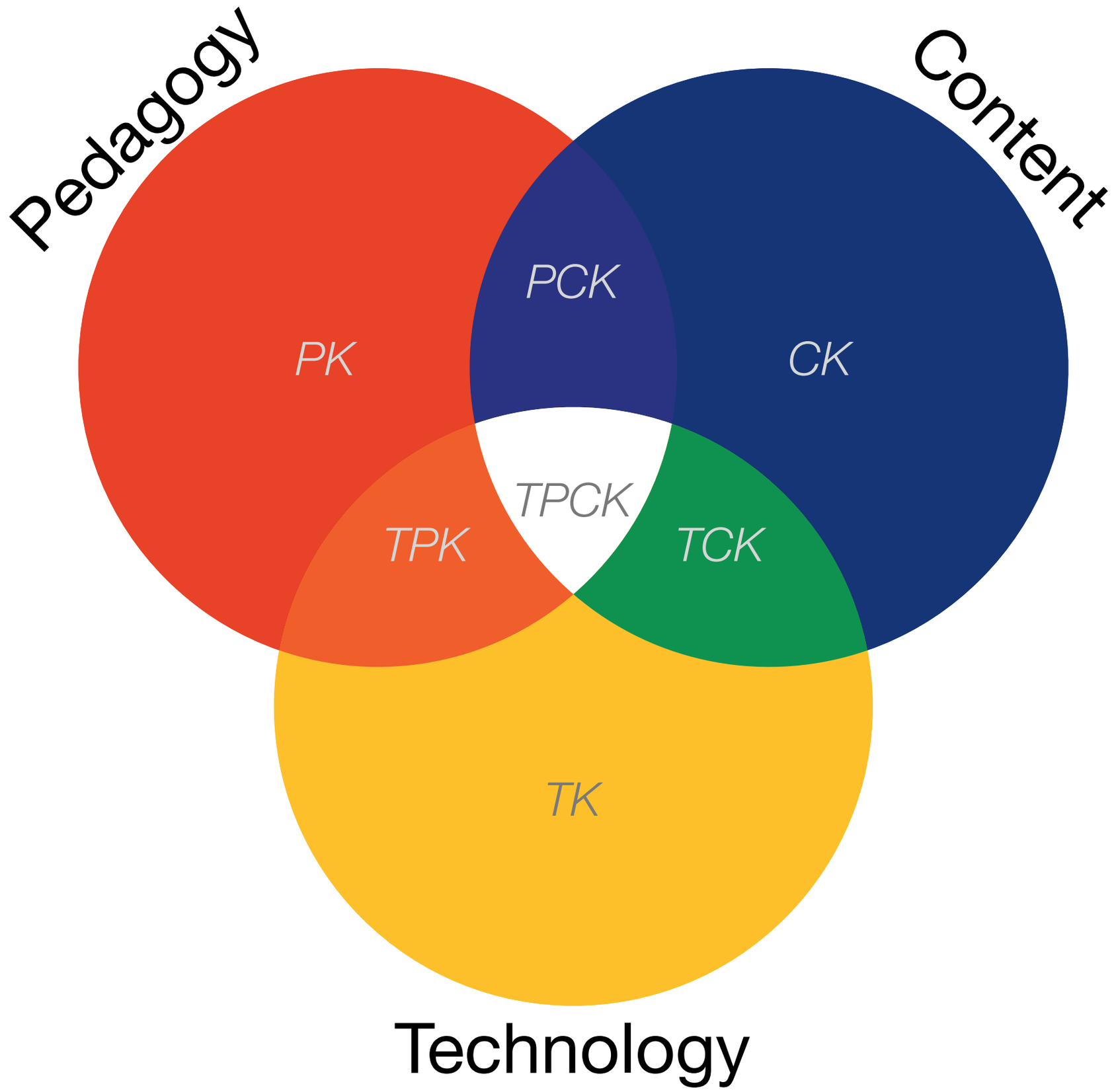
The TPCK Model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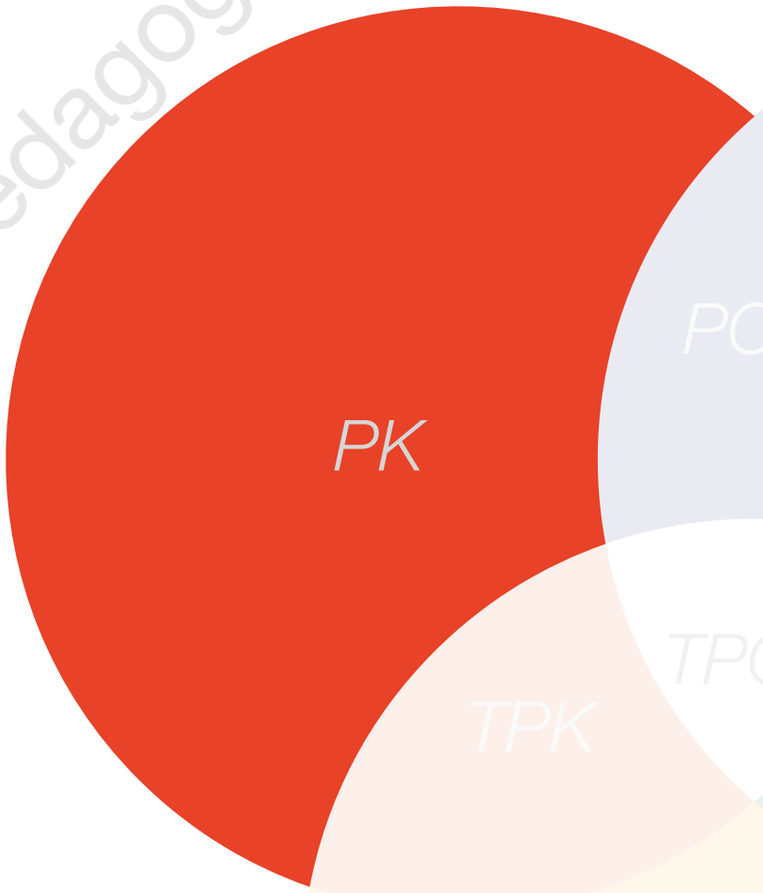
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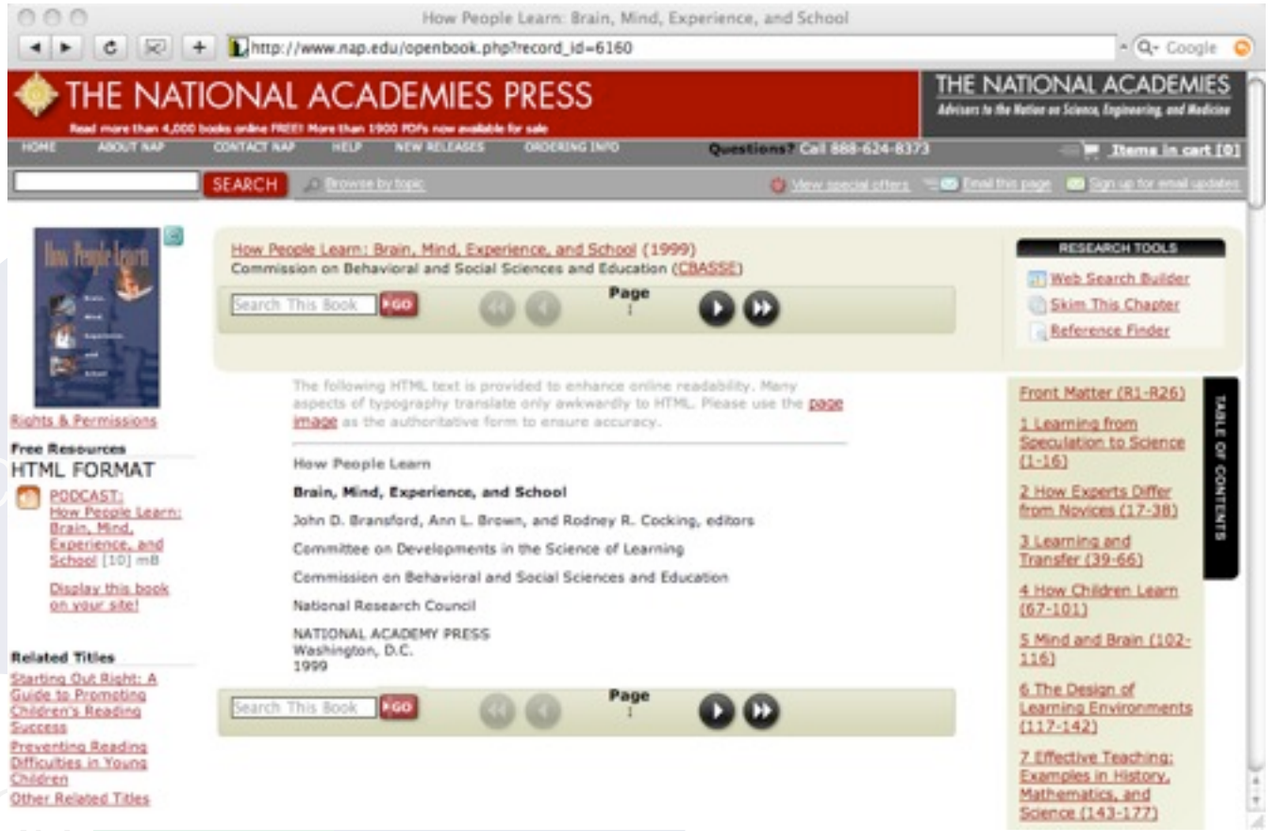
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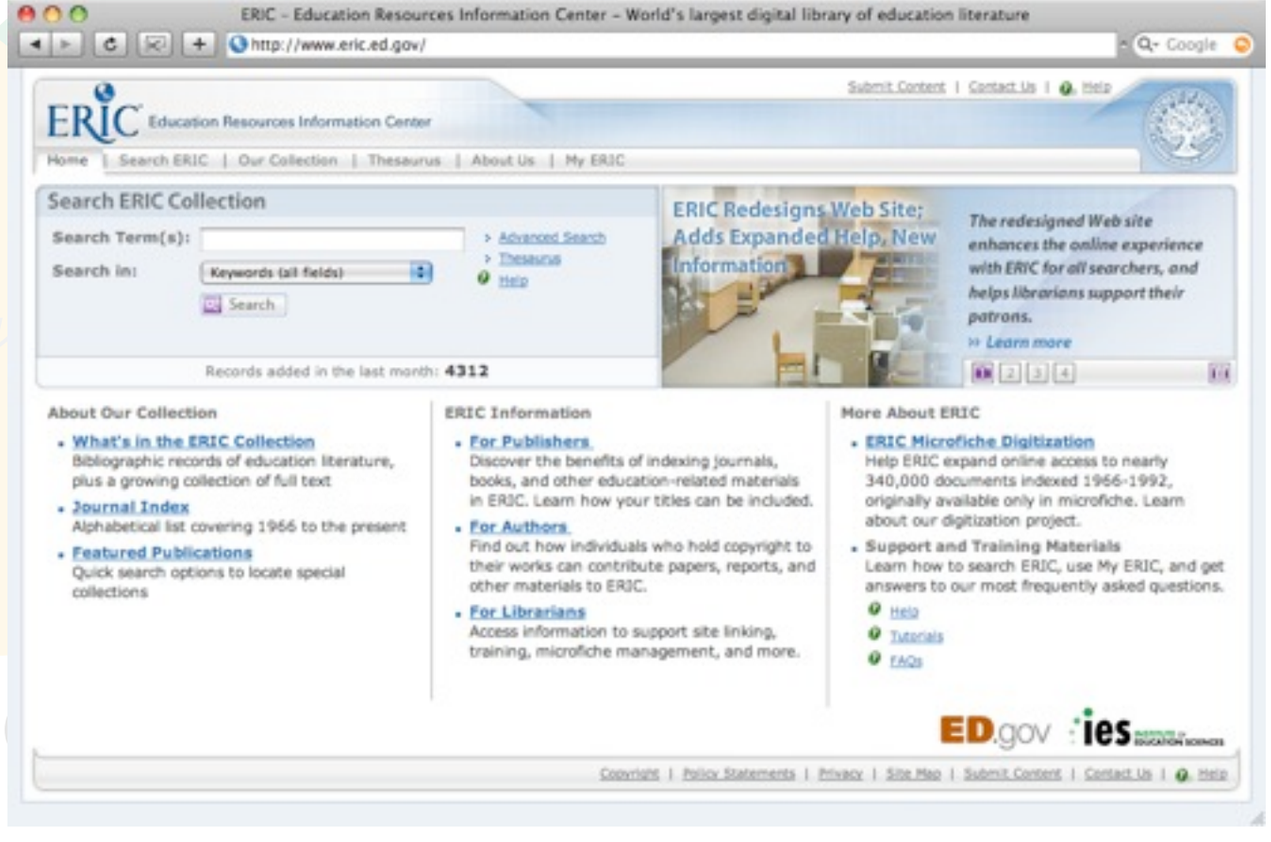
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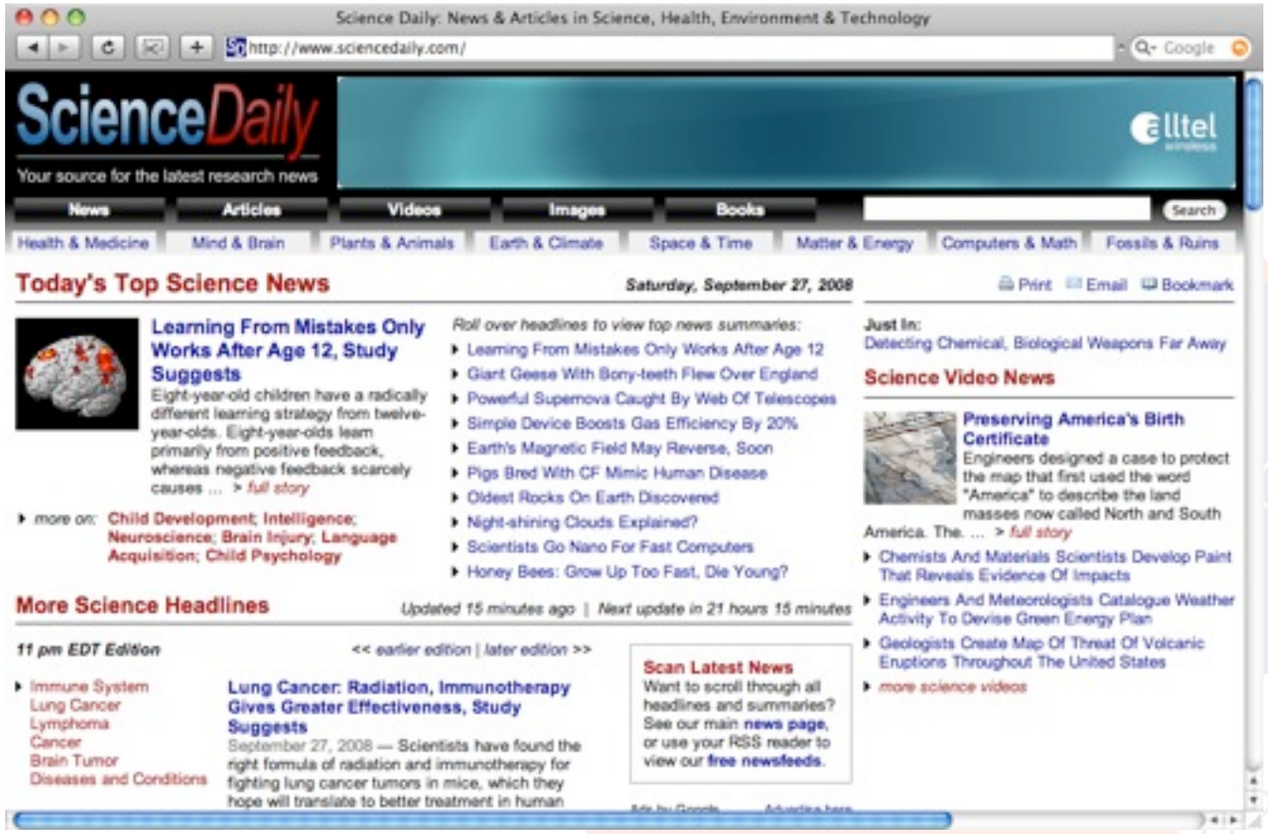
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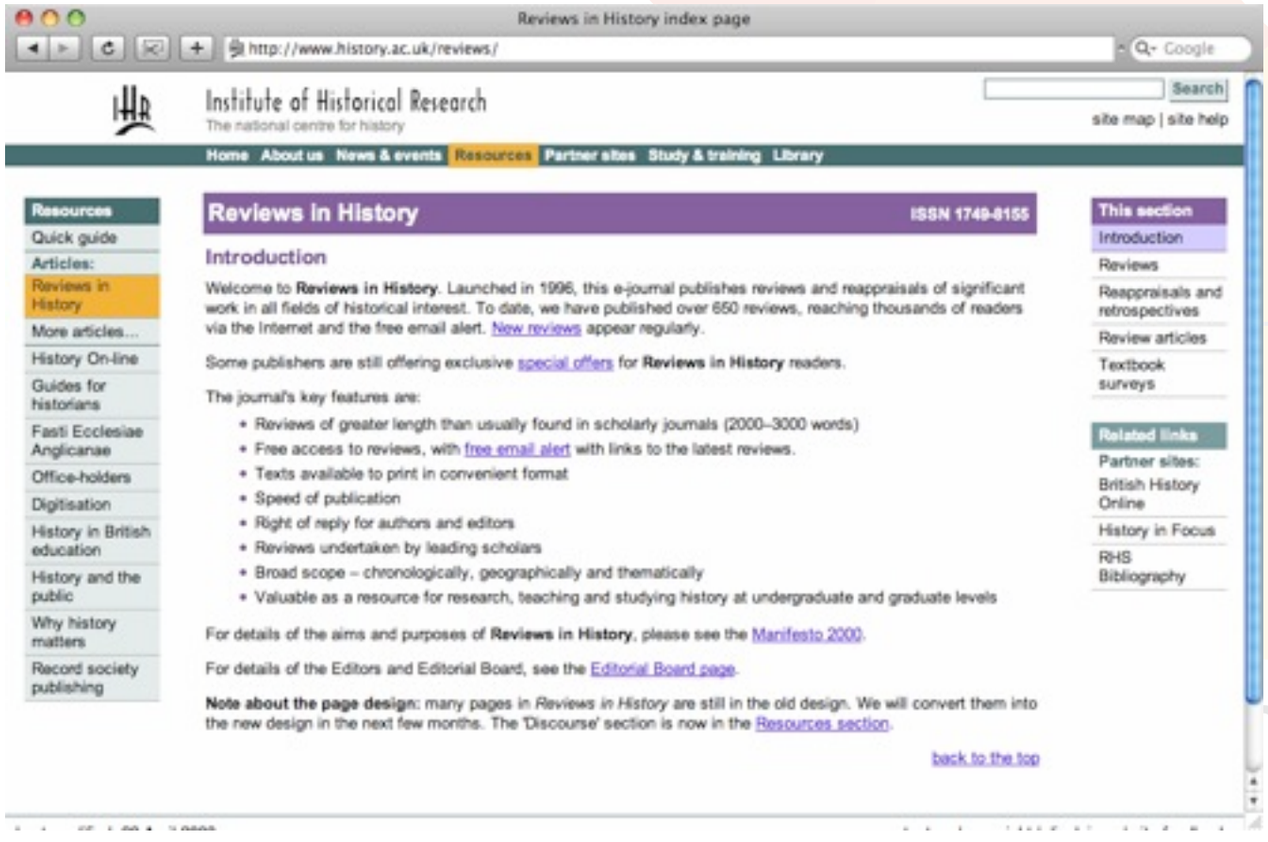
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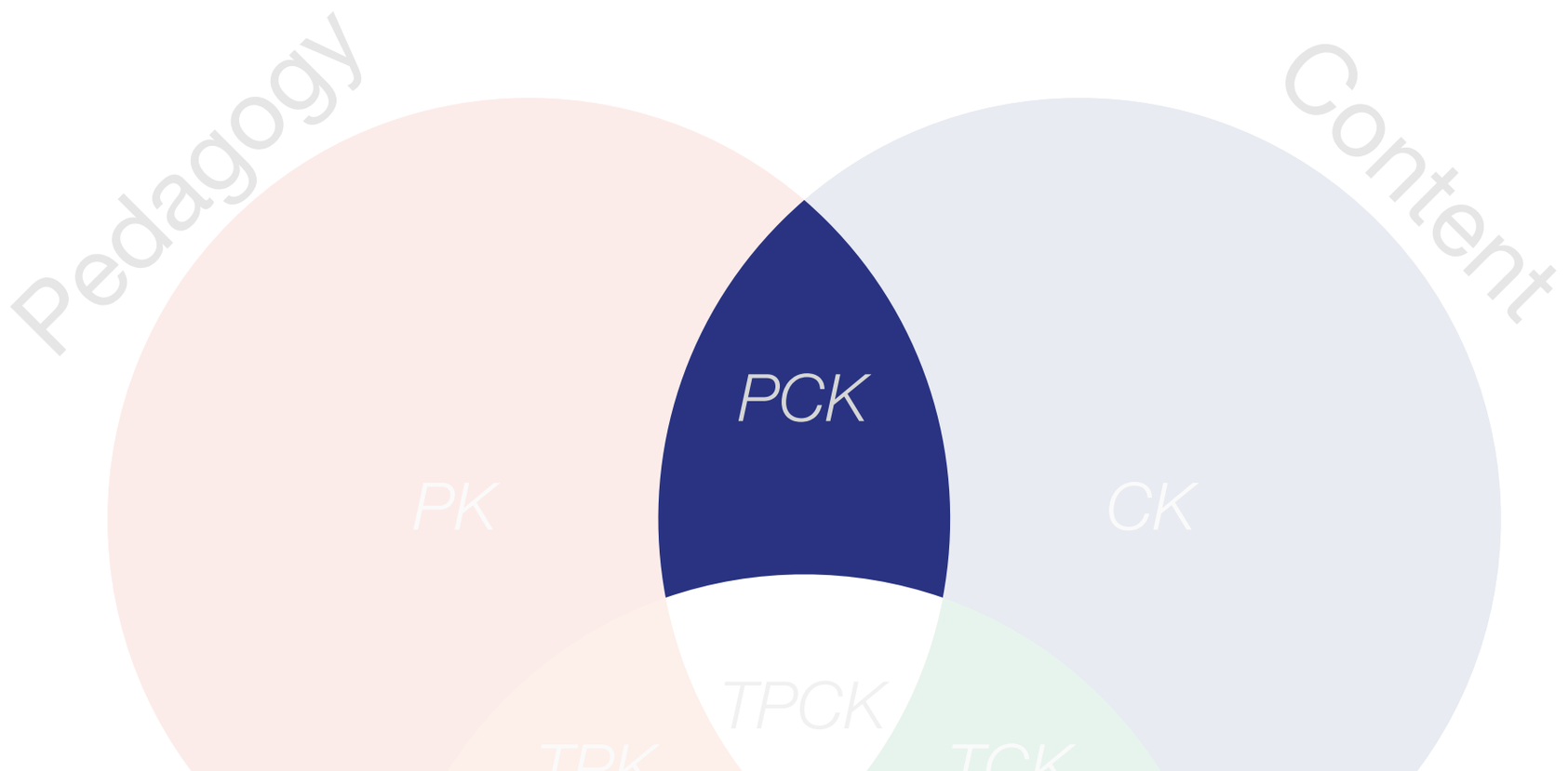
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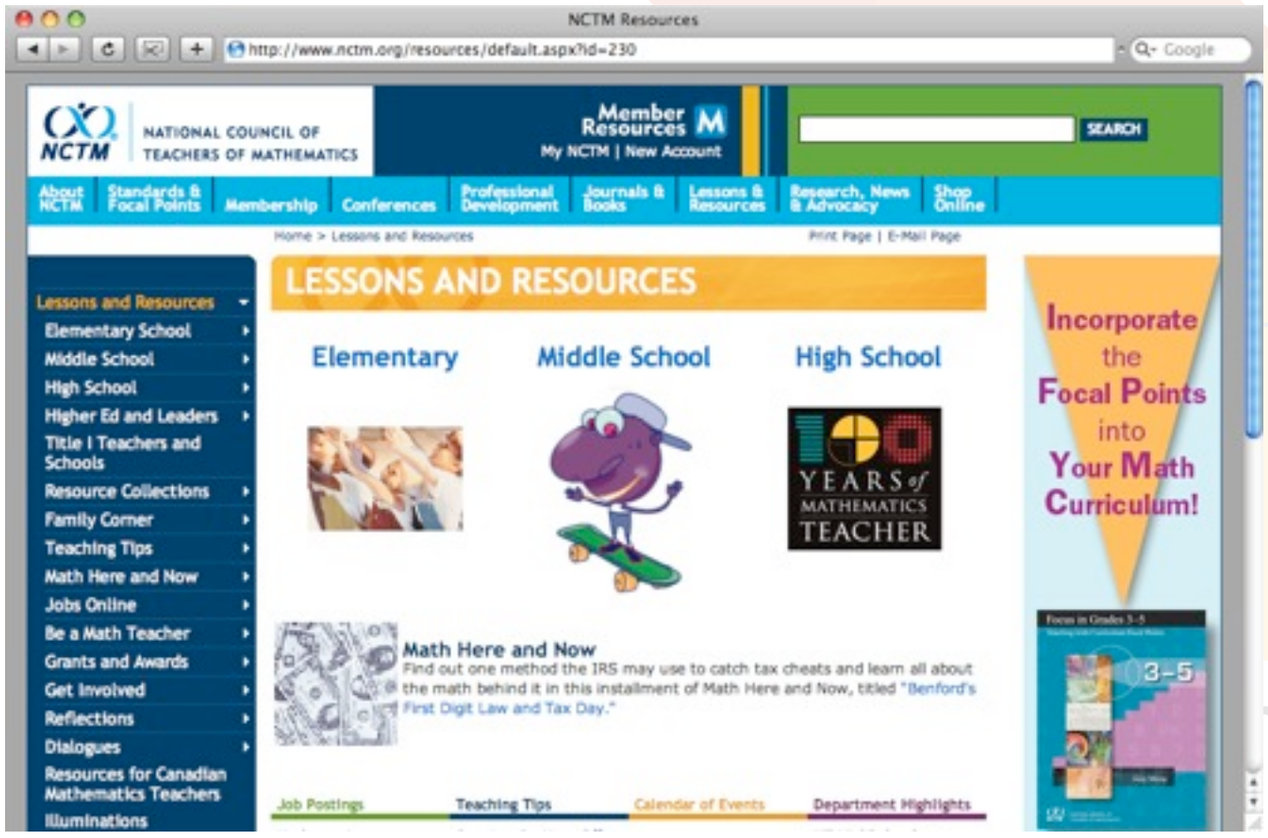
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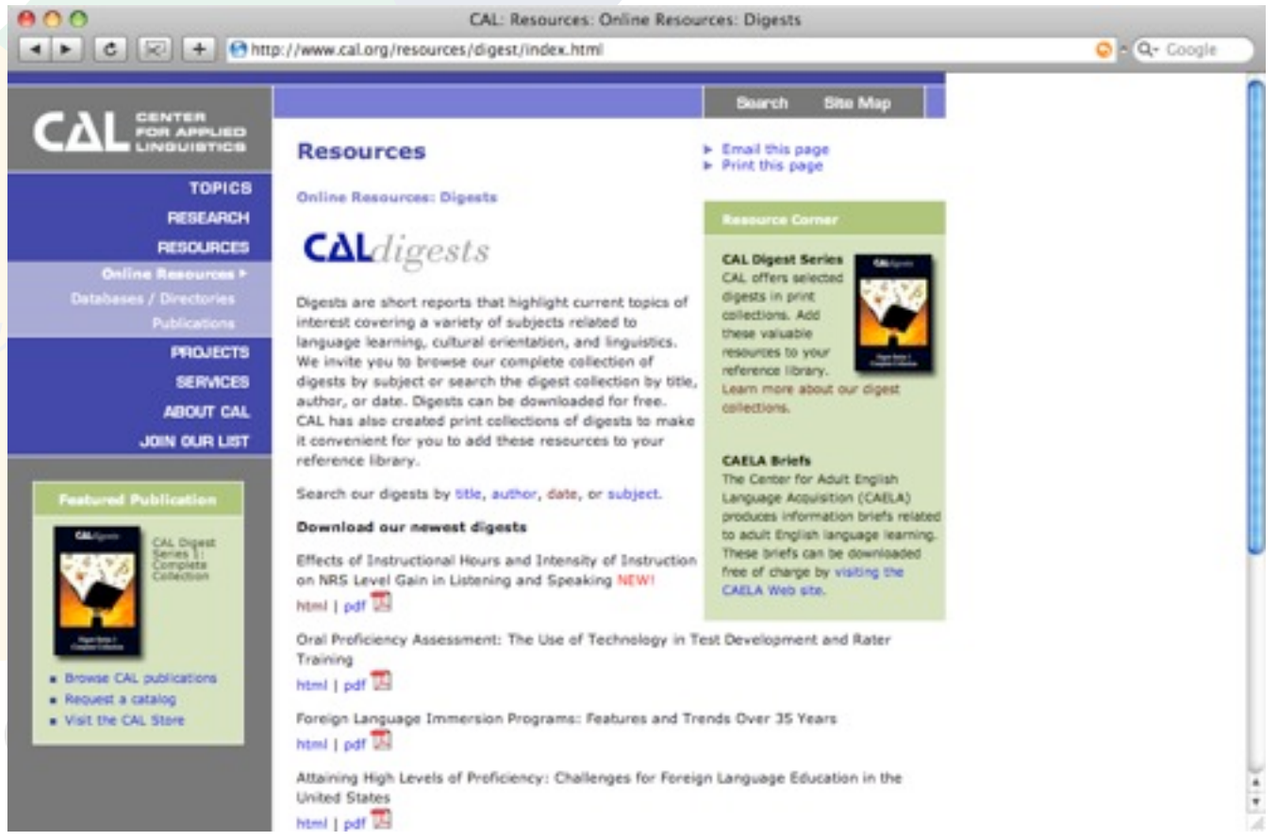
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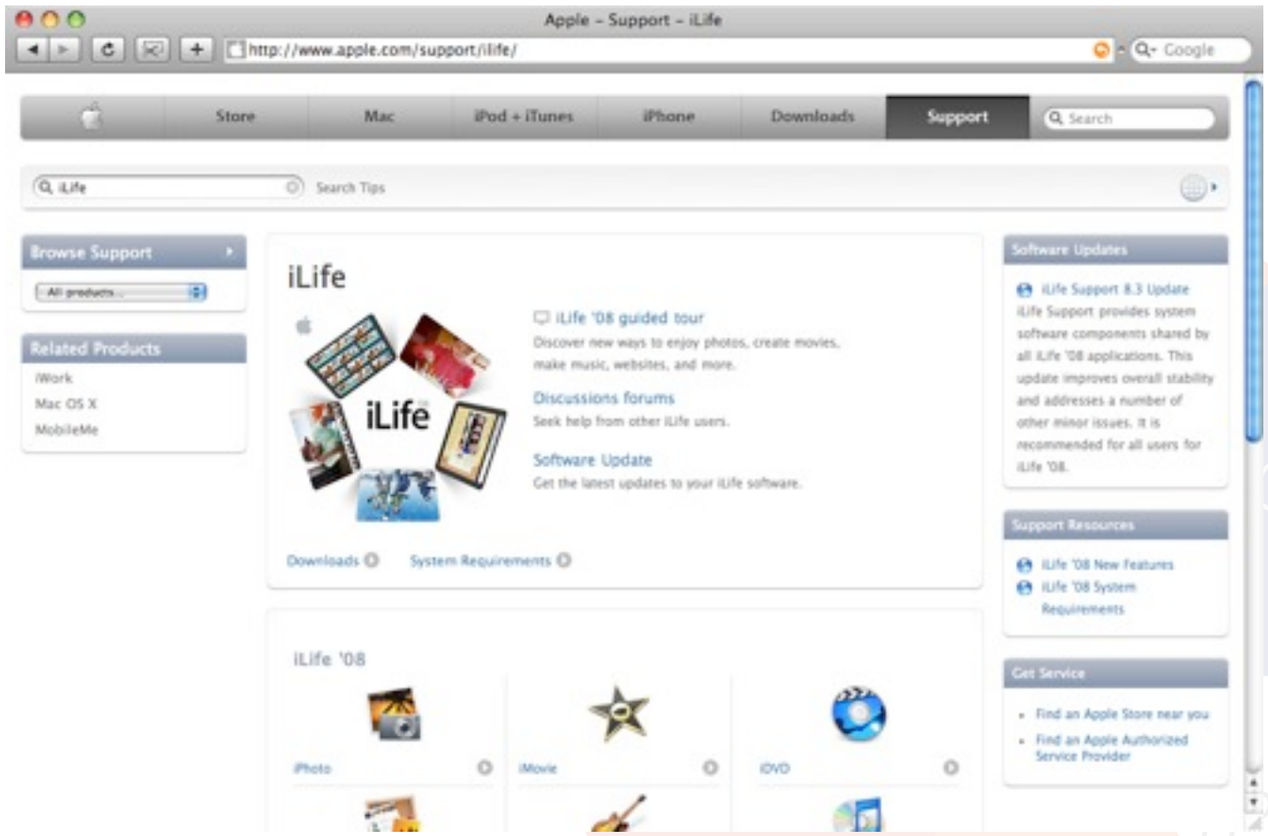
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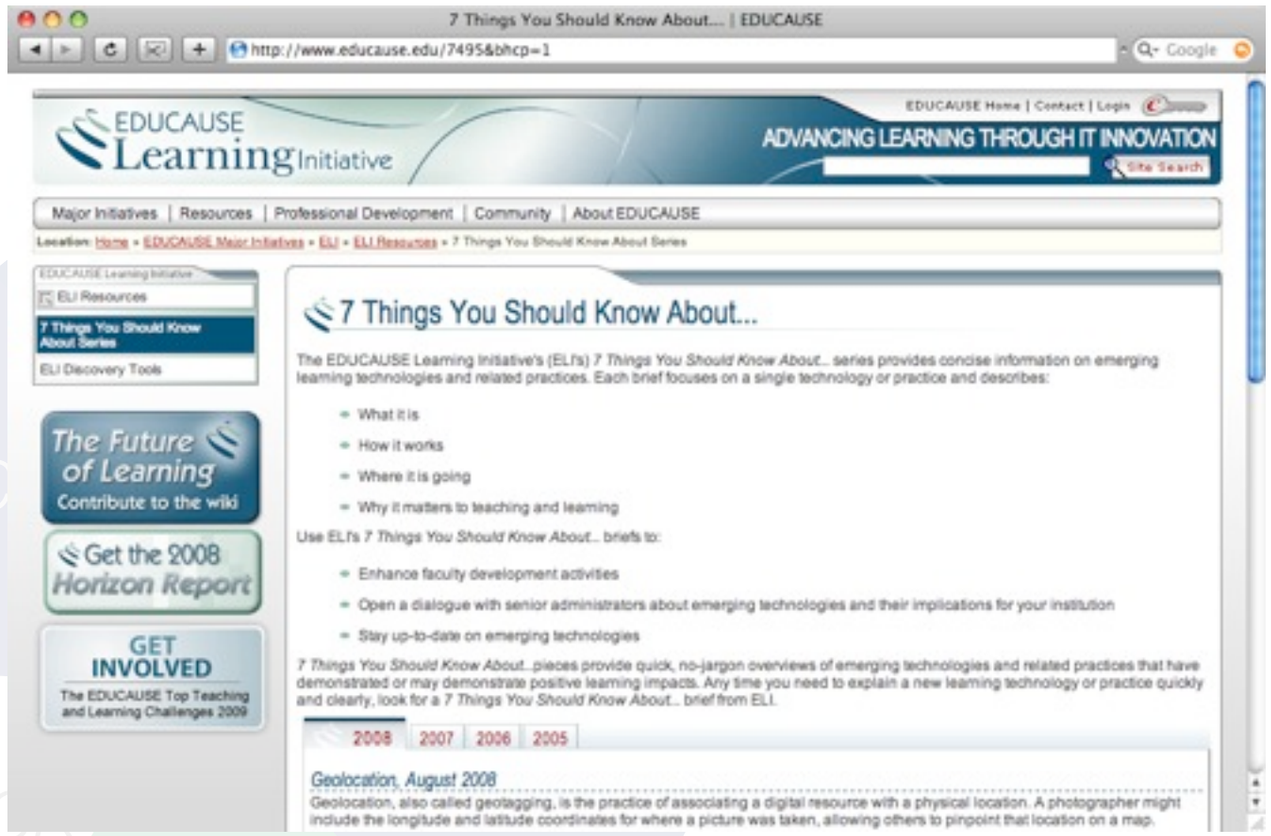
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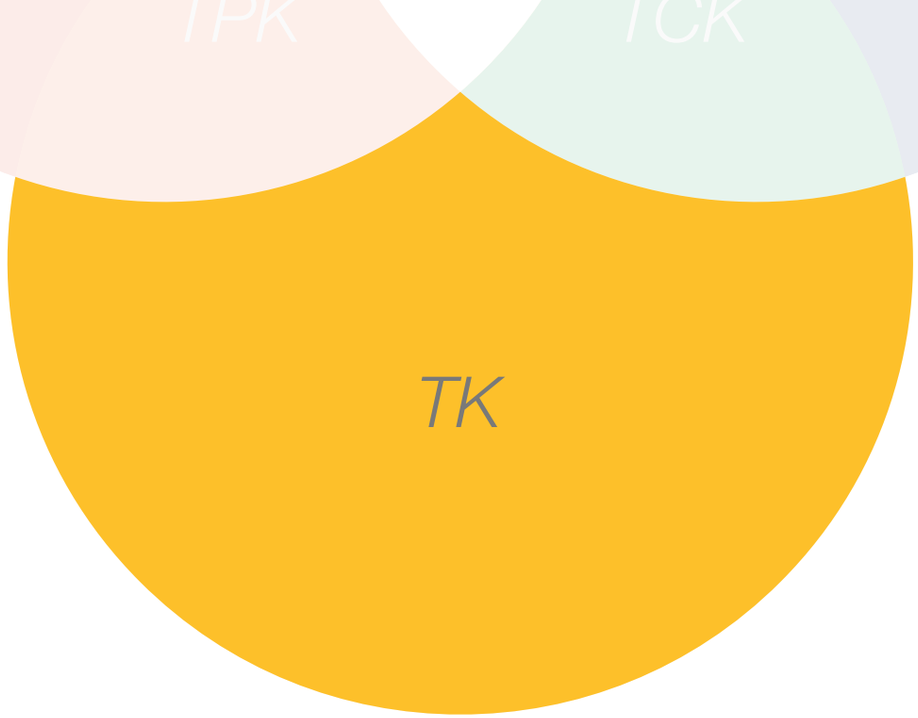
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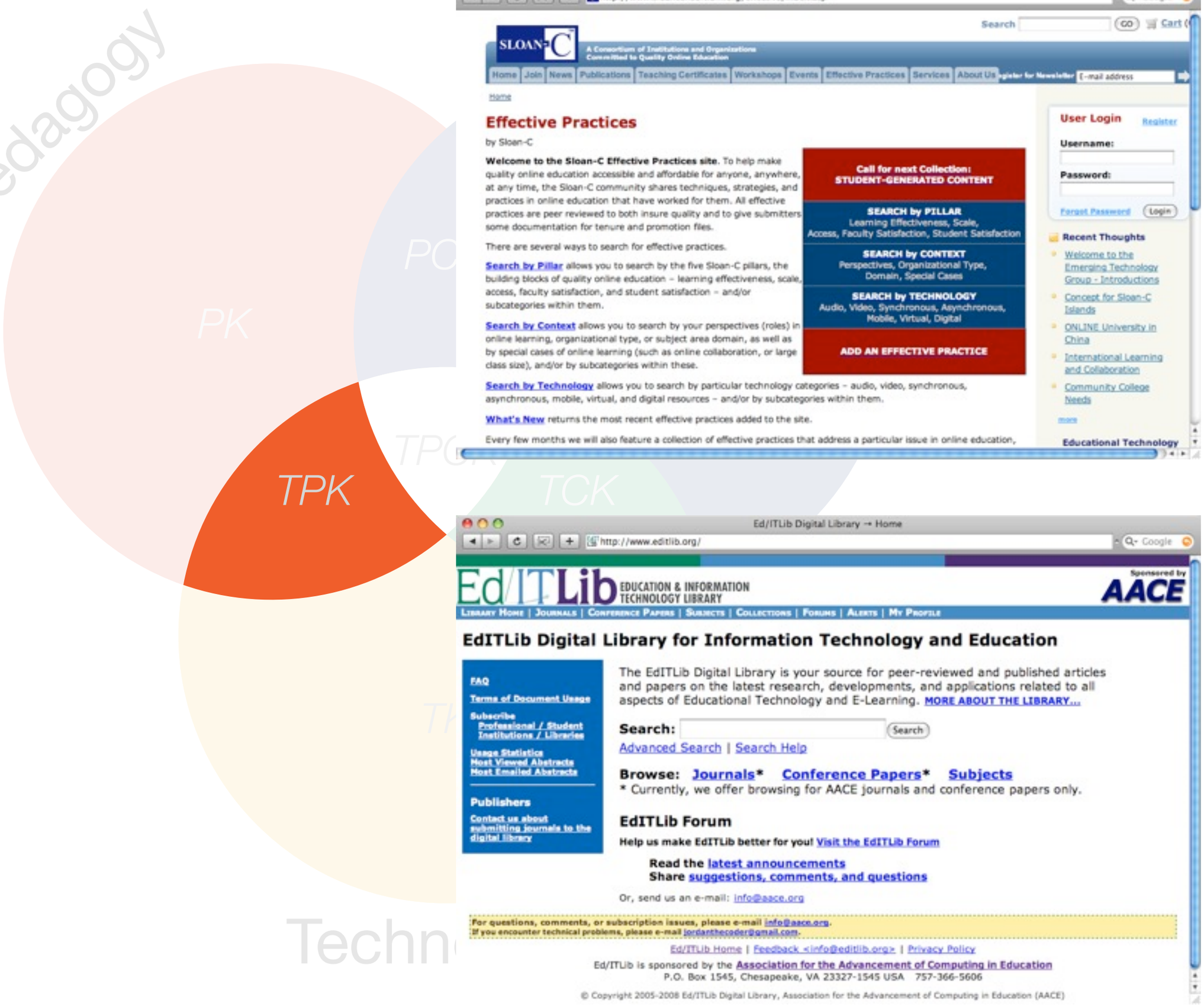
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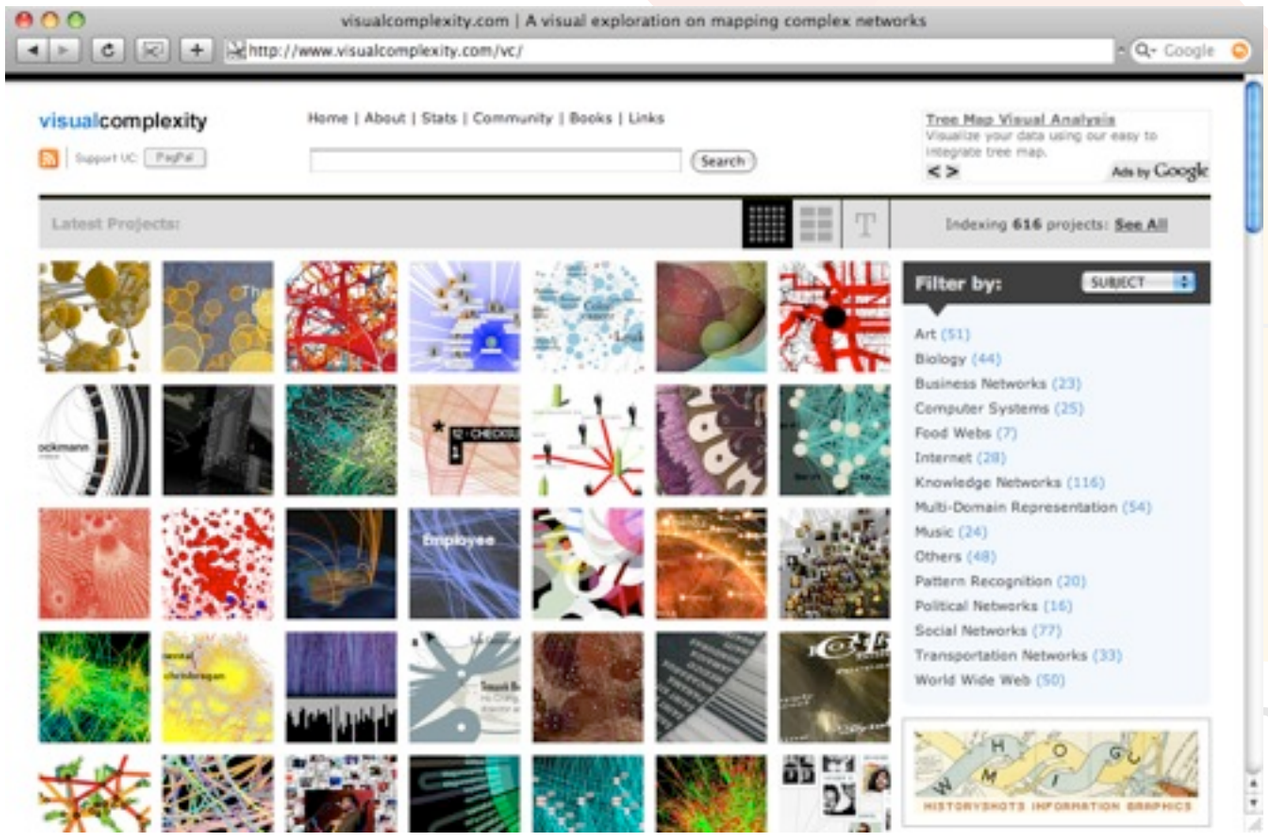
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Whale being harpooned. Colored engraving (n.d.). (Image courtesy of the Hart Nautical Collection, MIT Museum).

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Module 4: Designing Studies	
UNIT 4: Probability	
Module 5: Introduction (Probability)	
dule 6: Finding Probability of Events	
dule 7: Conditional Probability and Independence	

TPCK

Wikipedia:WikiProject Murder Madness and Mayhem - Wikipedia, the free encyclopedia

http://en.wikipedia.org/wiki/Wikipedia:WikiProject_Murder_Madness_and_Mayhem

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The Free Encyclopedia

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Wikipedia:WikiProject Murder Madness and Mayhem

From Wikipedia, the free encyclopedia

> *This is a remarkable project, and a herculean task realized in the short time span of less than 15 weeks. Jon and his students are [a] model for thinking, sharing and contributing with[in] the open space of the internet. An important act of faith and intellectual responsibility. It is ever so impressive.*
>
> —Jim Groom[1]

> *Gives students real-world experience finding their way, collaboratively, to high standards of content and writing in their field. It's an incredible example of what college students and their inspired teacher can do, collaborating, reflecting, listening, revising.*
>
> —Barbara Ganley[2]

> *Over the course of the last few months I have learned so much about writing I cannot even express... and it shows. I have been a B+/A- student throughout my entire undergraduate career, and my last two papers have been A's! I think the grades speak for themselves.*
>
> —Monica Freudenreich[3]

> *I will no longer allow my daughter to consider attending the University of British Columbia, so long as Murray is paid to teach there.*
>
> —Gregory Kohs[4]

The grand-daddy of them all...
Juan Facundo Quiroga

The University of British Columbia's class SPAN312 ("Murder, Madness, and Mayhem: Latin American Literature in Translation") contributed to Wikipedia during Spring 2008. Our collective goals were to bring a selection of articles on Latin American literature to featured article status (or as near as possible). By project's end, we had contributed three featured articles and eight good articles. None of these articles was a good article at the outset; two did not even exist.

Shortcut:
WP:MMM

HIUS 323: The Rise and Fall of the Slave South

http://www.vcdh.virginia.edu/HIUS323/

The Rise and Fall of the Slave South

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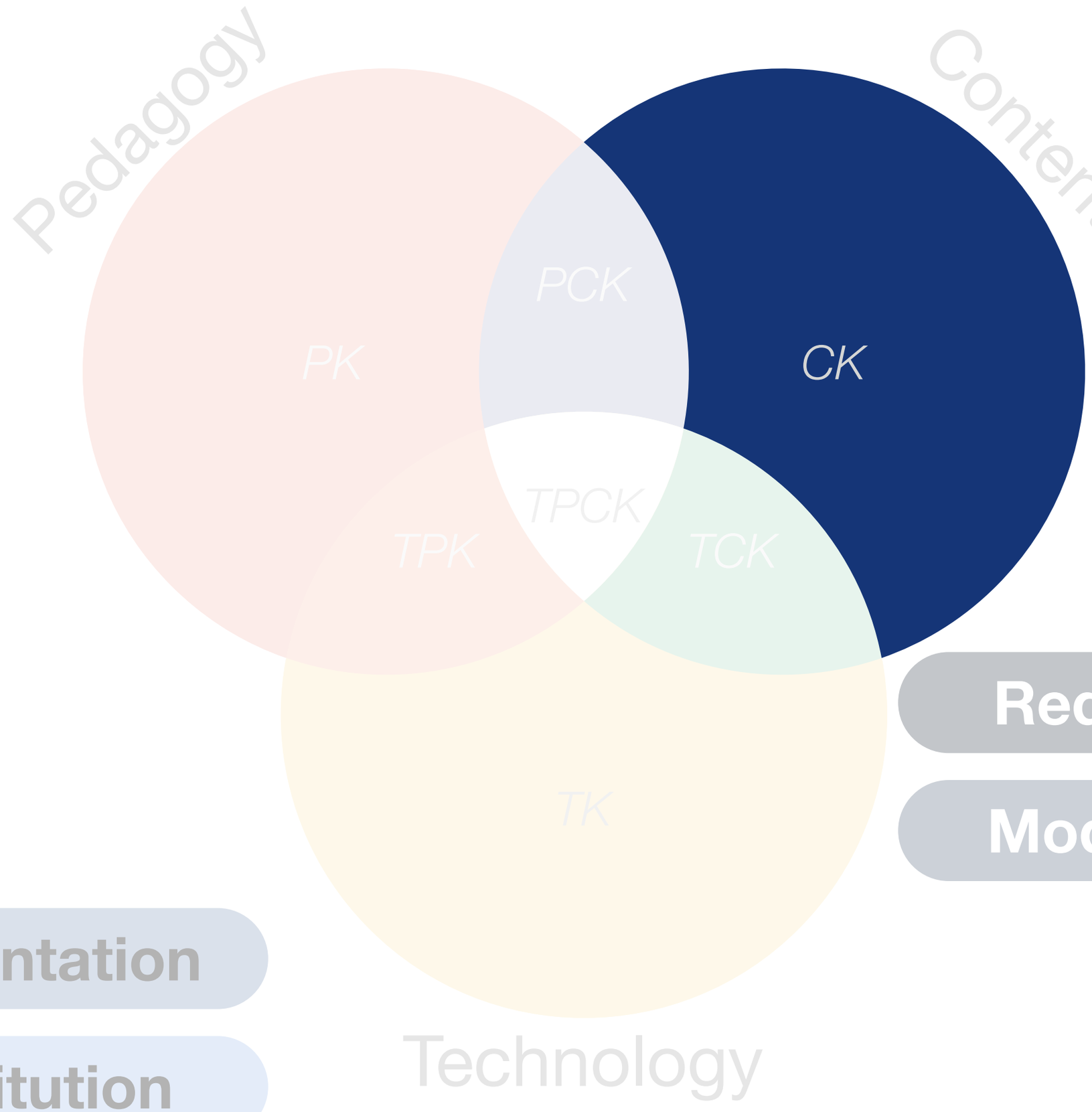

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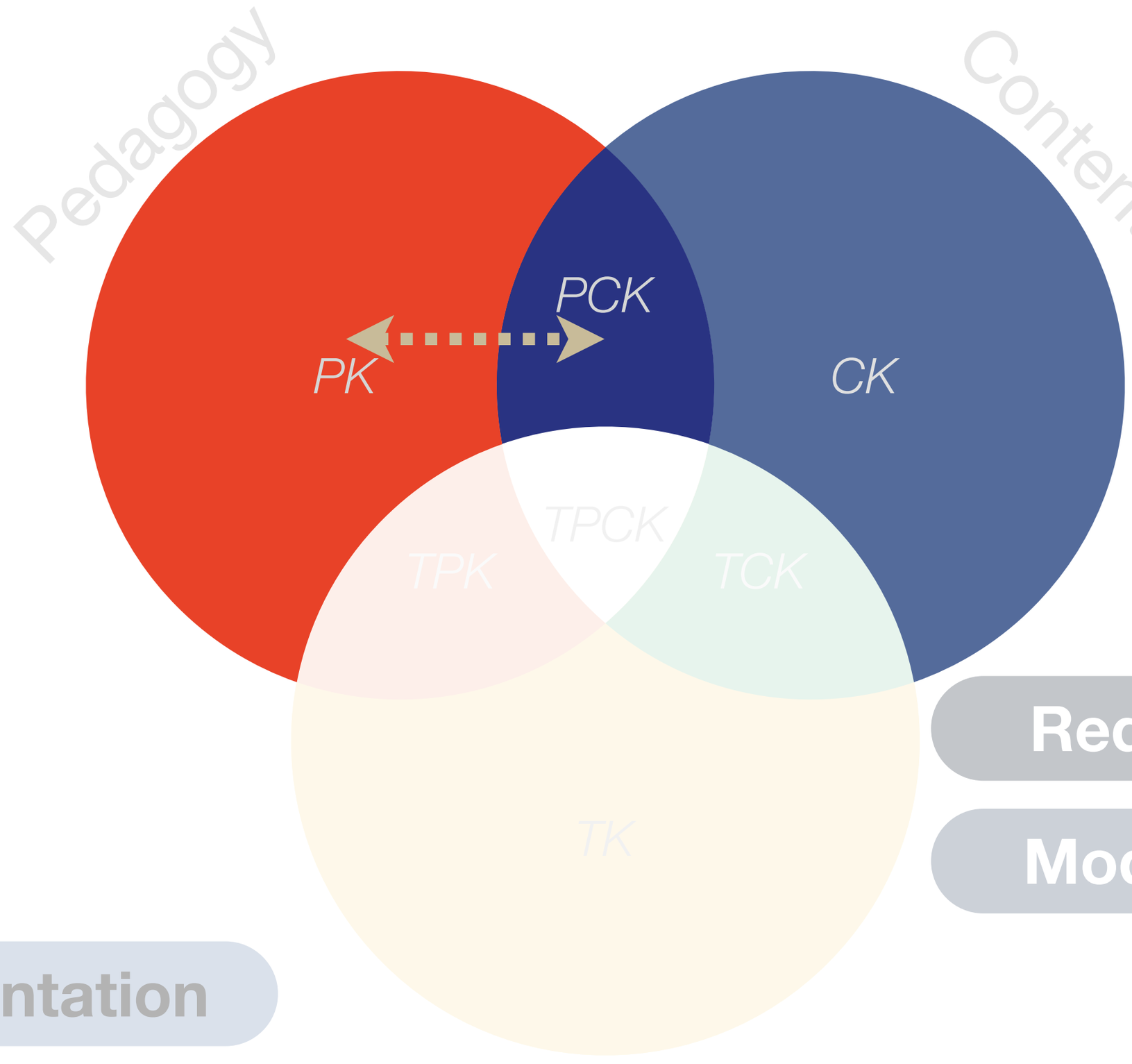

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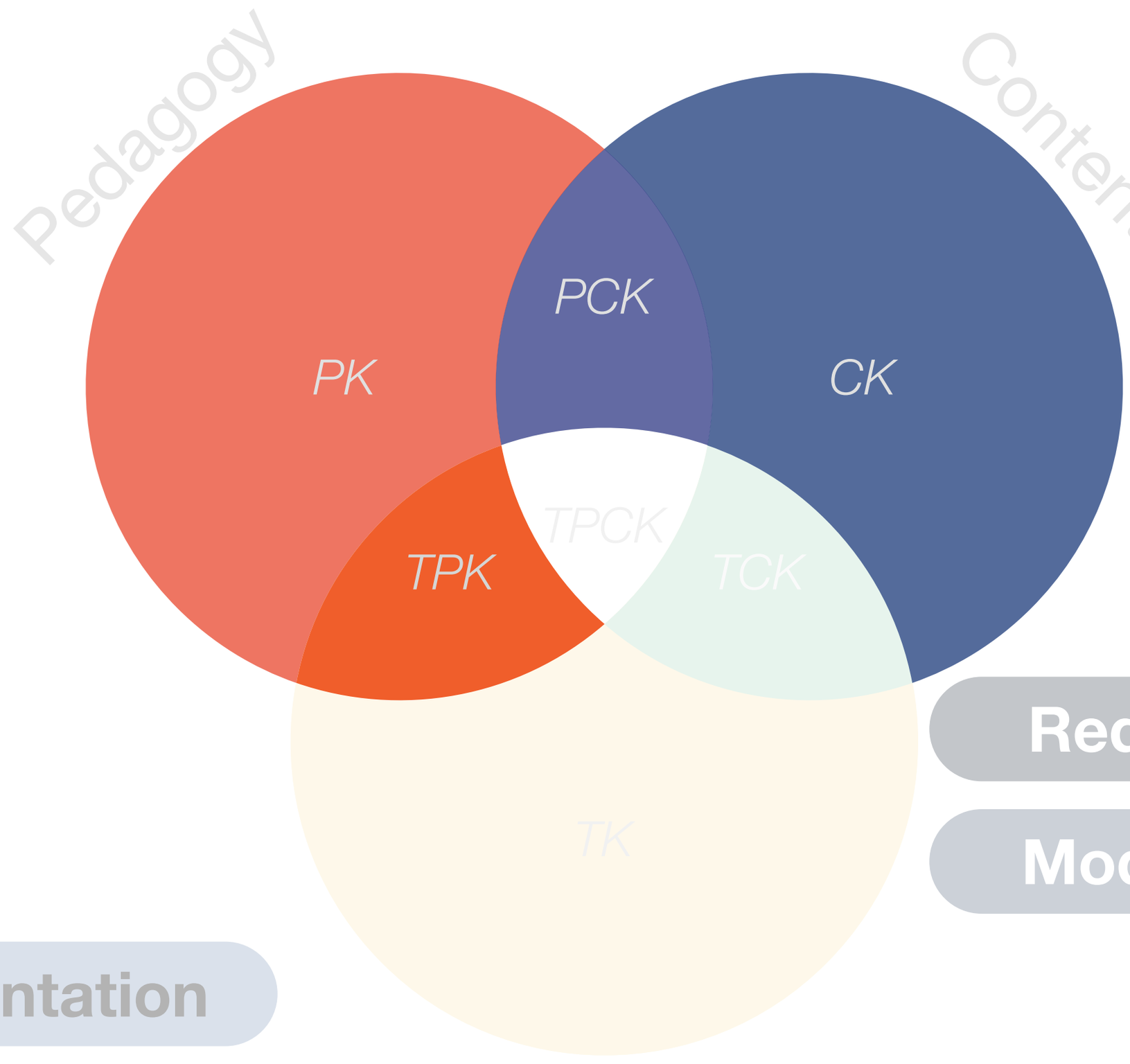

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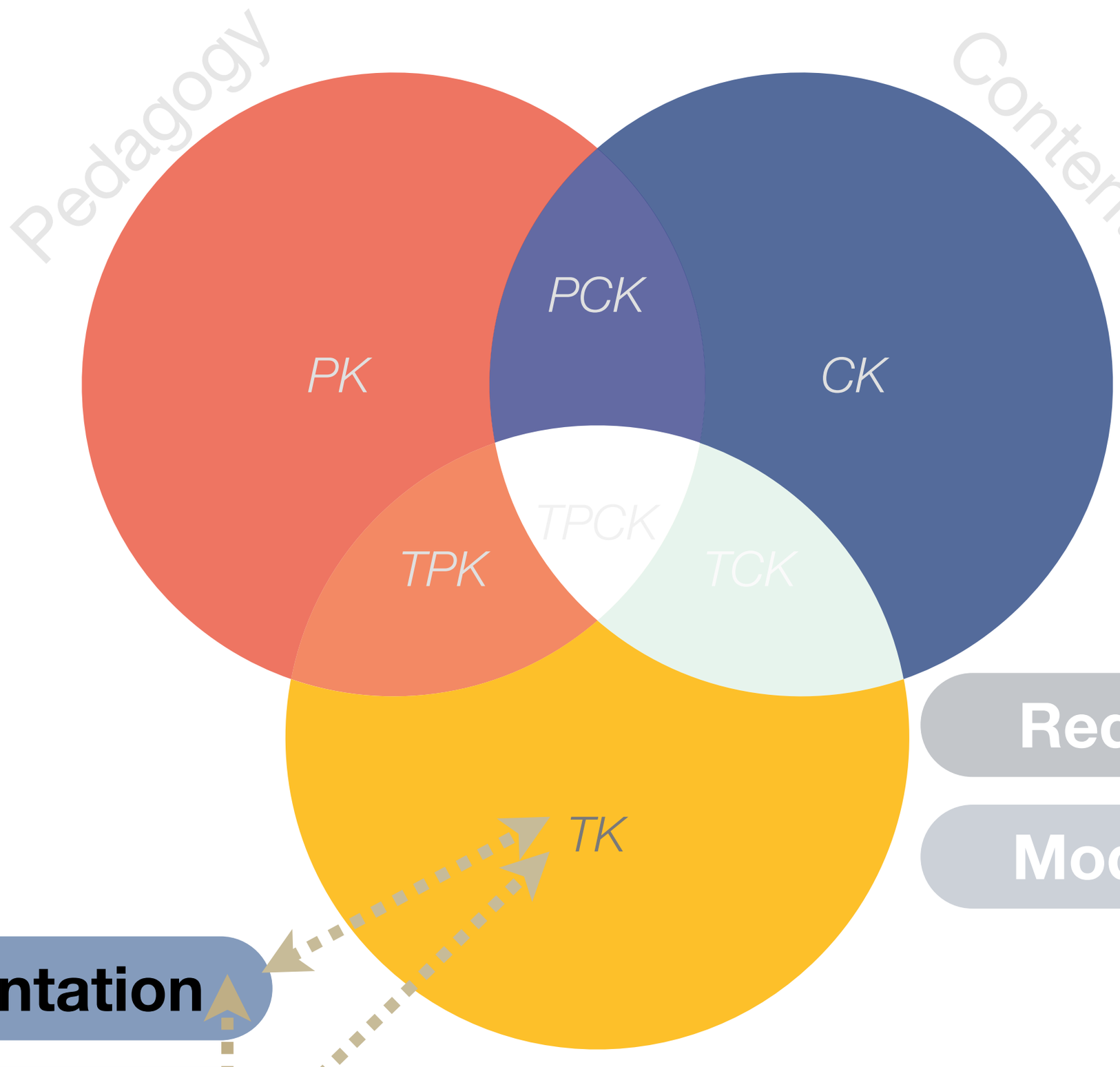

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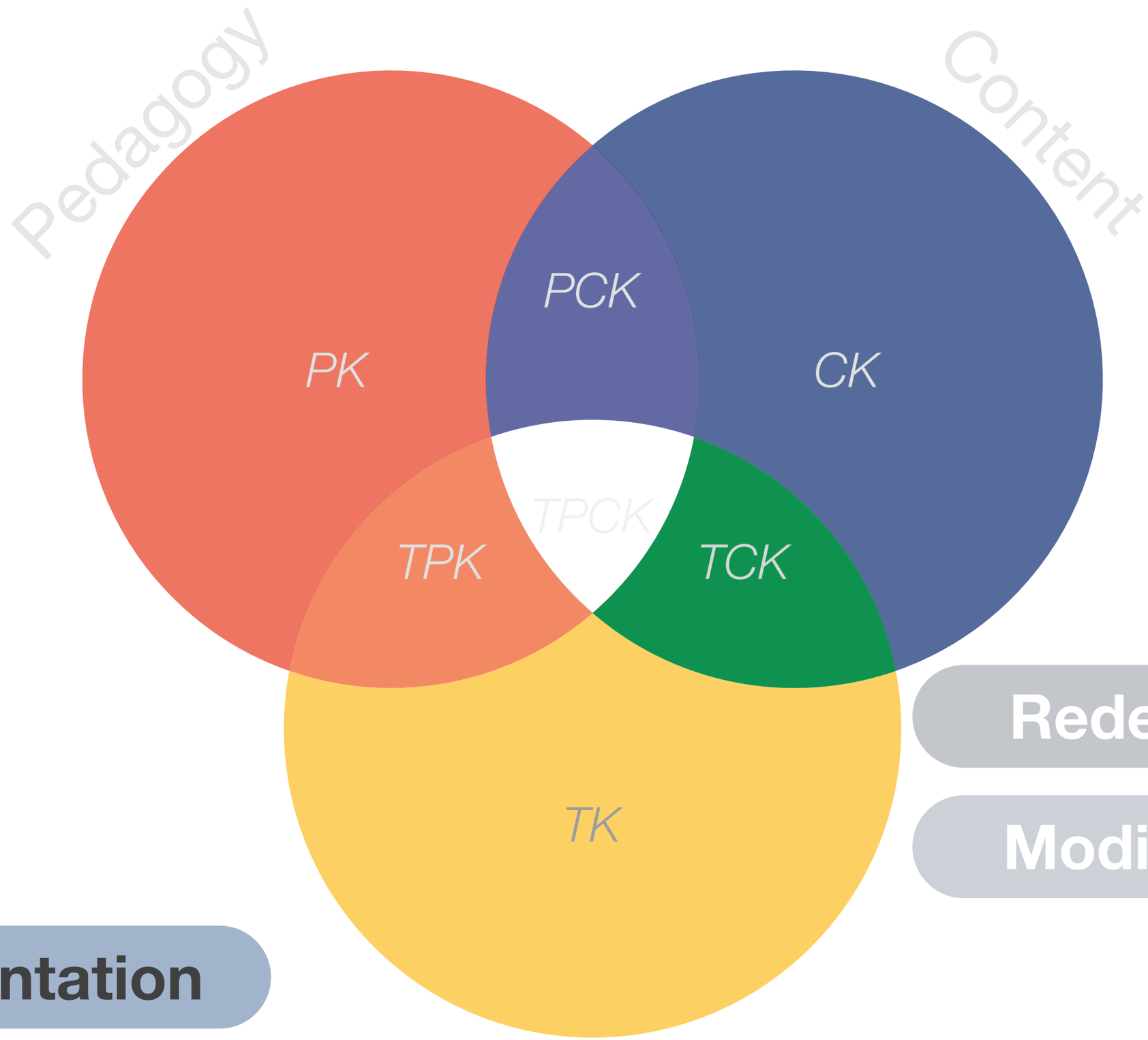

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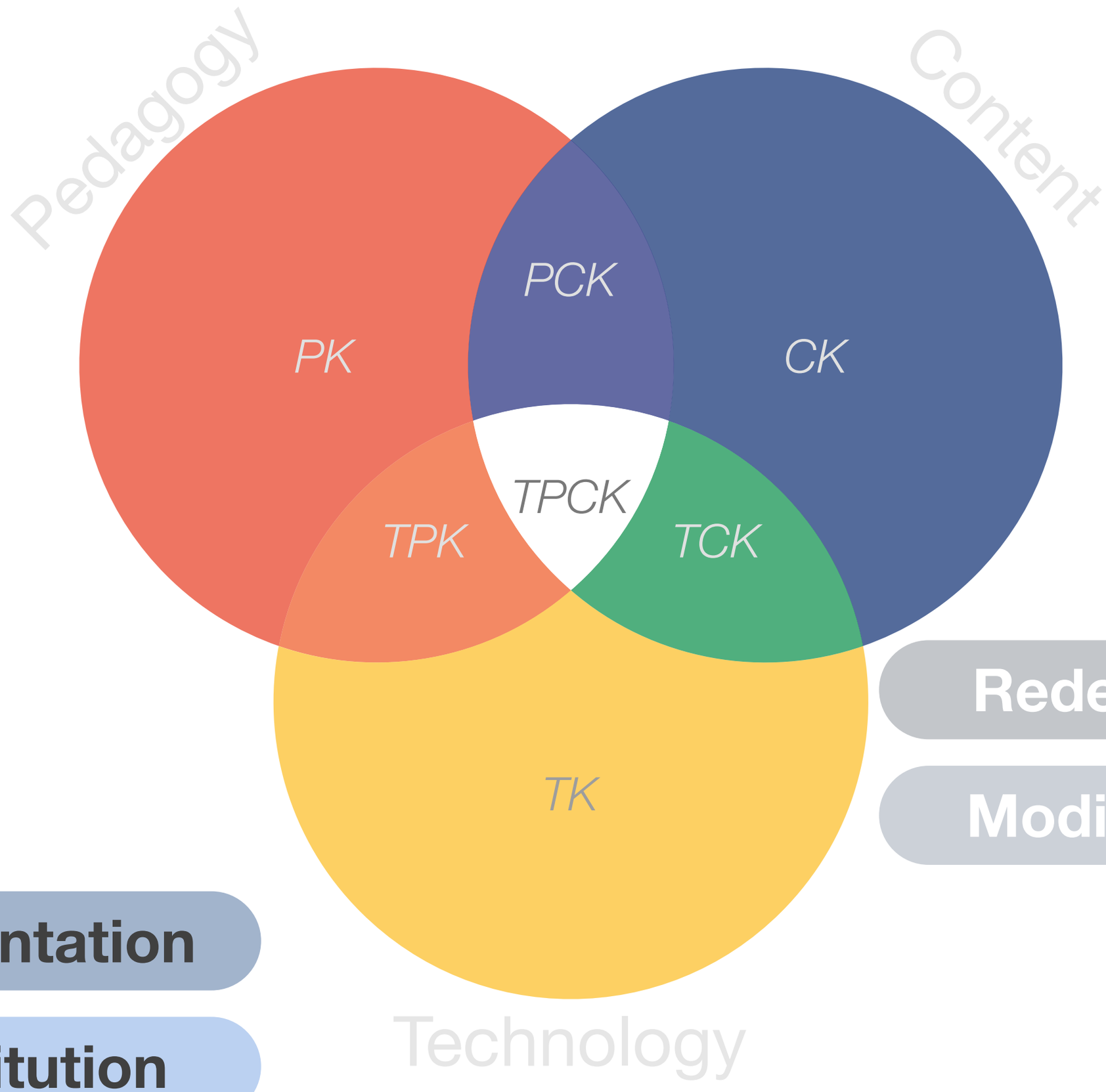

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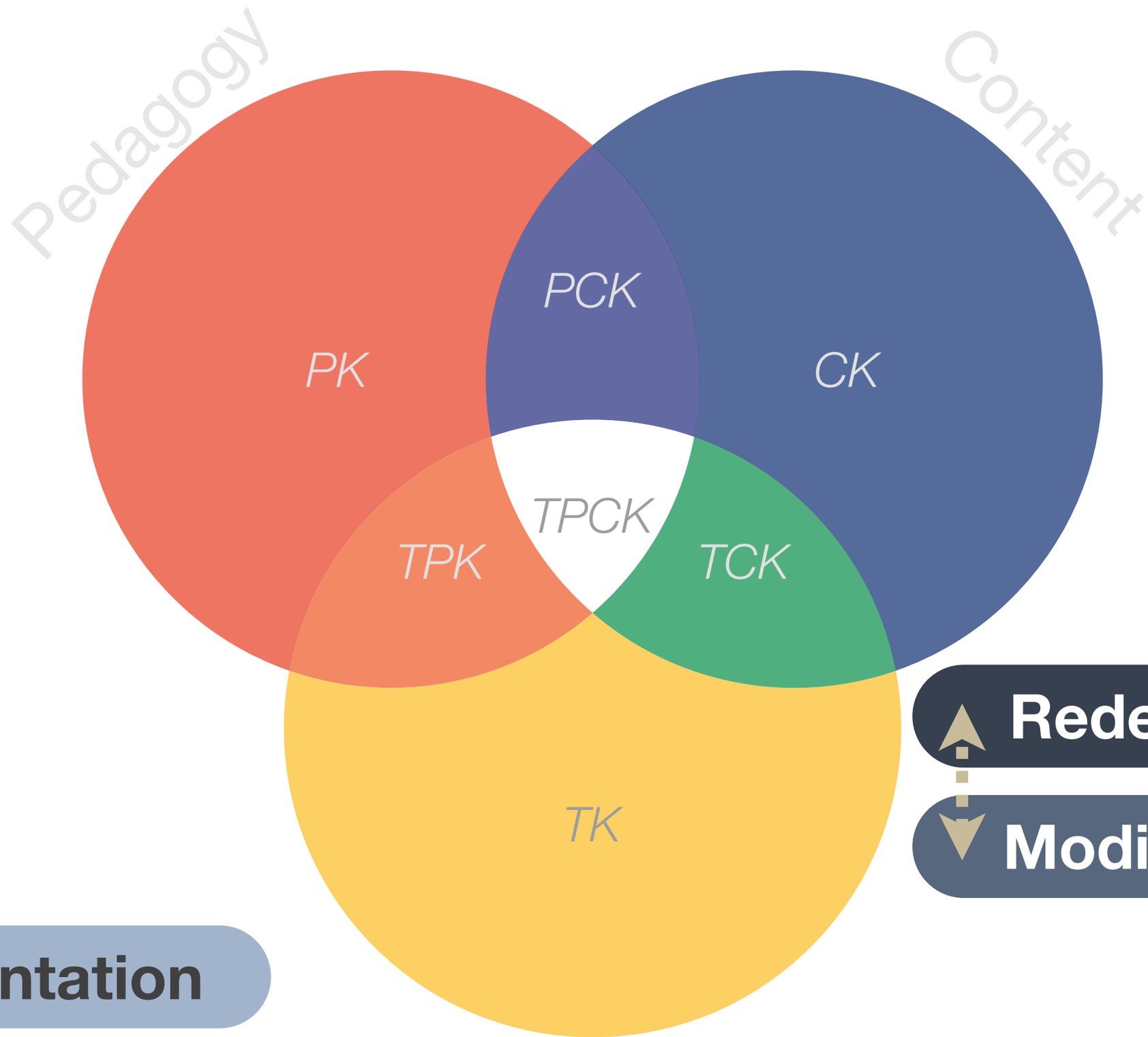

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Research Process

Writing Process

Digital Citizenship

Making Meaning

Digital Storytelling

UDL/Accessibility

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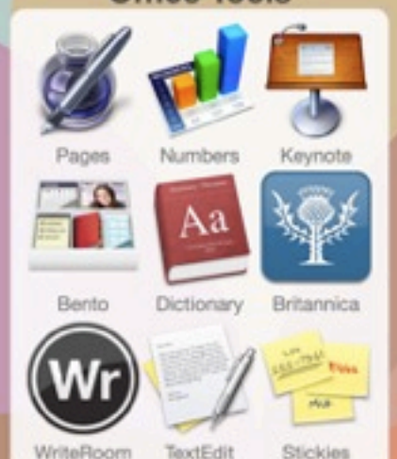
Office Tools



Math & Science Tools

Info Organization

Media Tools

Educational Games

Utilities

Social Computing

Digital Storytelling

Social

Narrative

Transformation

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Play

Visualization and Simulation

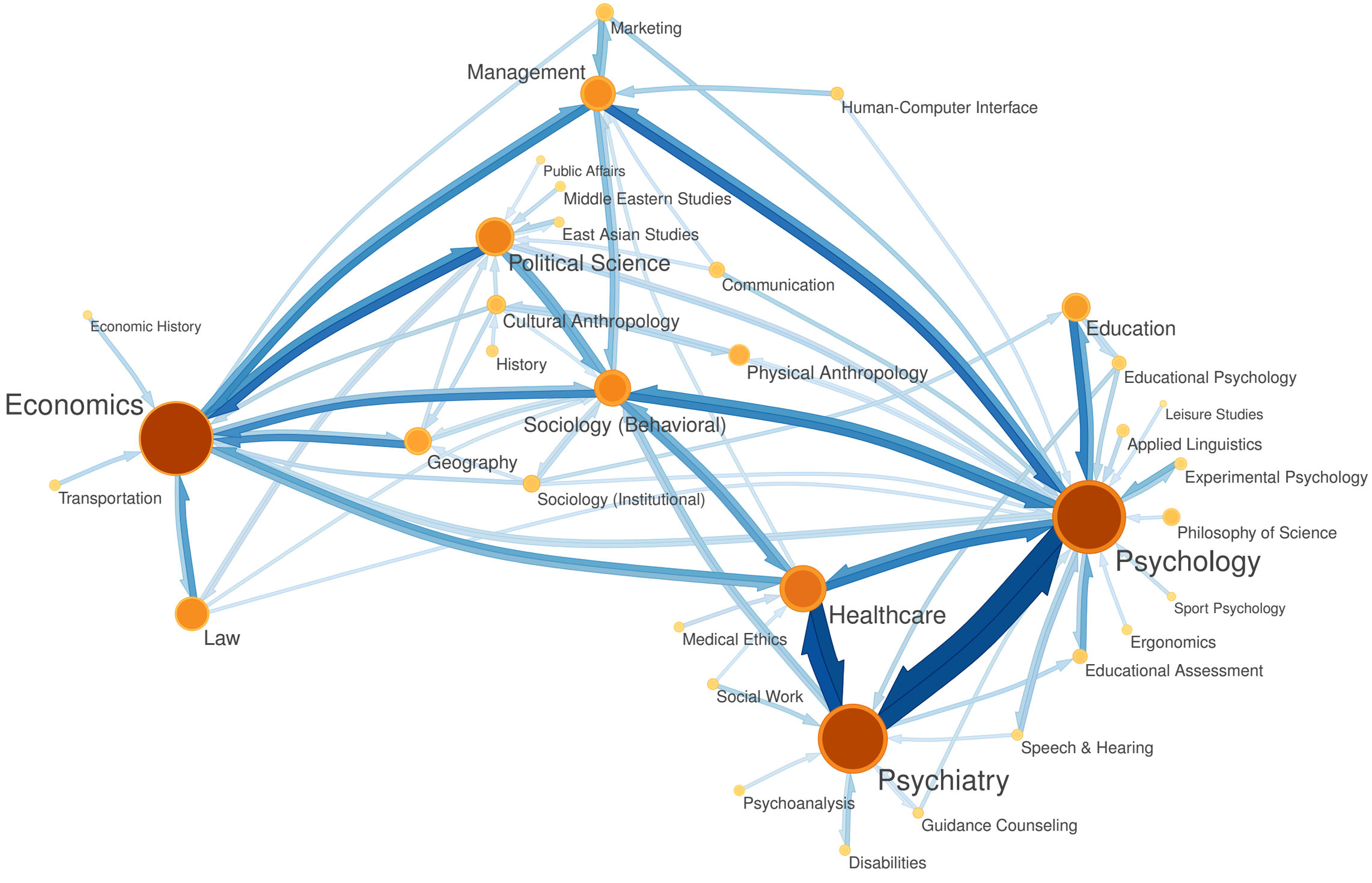
Educational Gaming

Three Key Curricular Areas

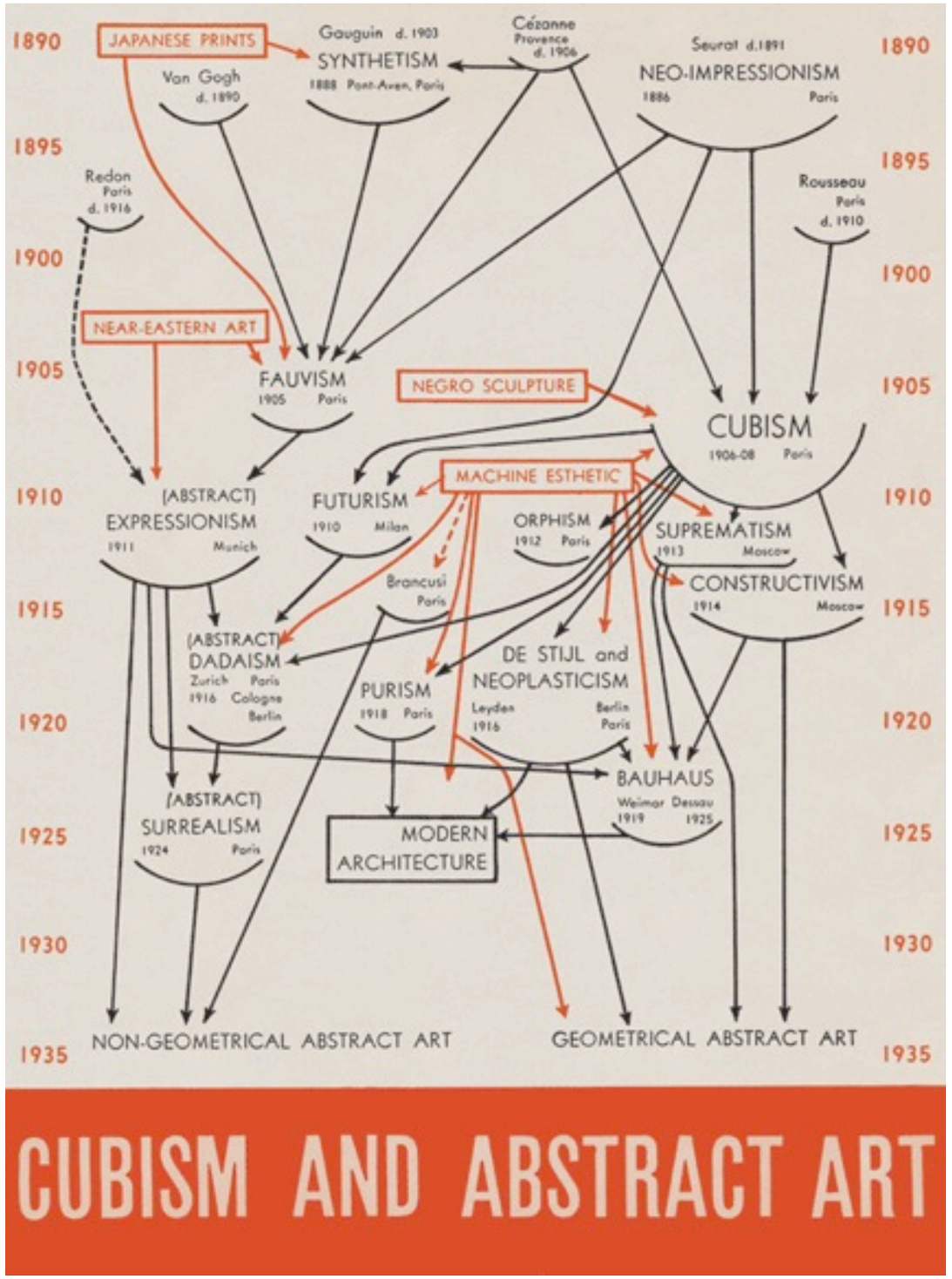
- The Connected Approach to Learning
  - Connections between subject areas
  - Connections within subject areas
- Asking how we know what we know
  - Ways of knowing in the humanities, arts, sciences, and mathematics
  - Nonsense detection filters
- Integrating theoretical domains with applied practice
  - Micro theory into macro observation
  - Macro theories into micro observation

Connections Between Subject Areas
Example: Analytic Narrative

Connections Between Subject Areas
Example: the Social Sciences



Connections Within Subject Areas
Example: Visual Arts

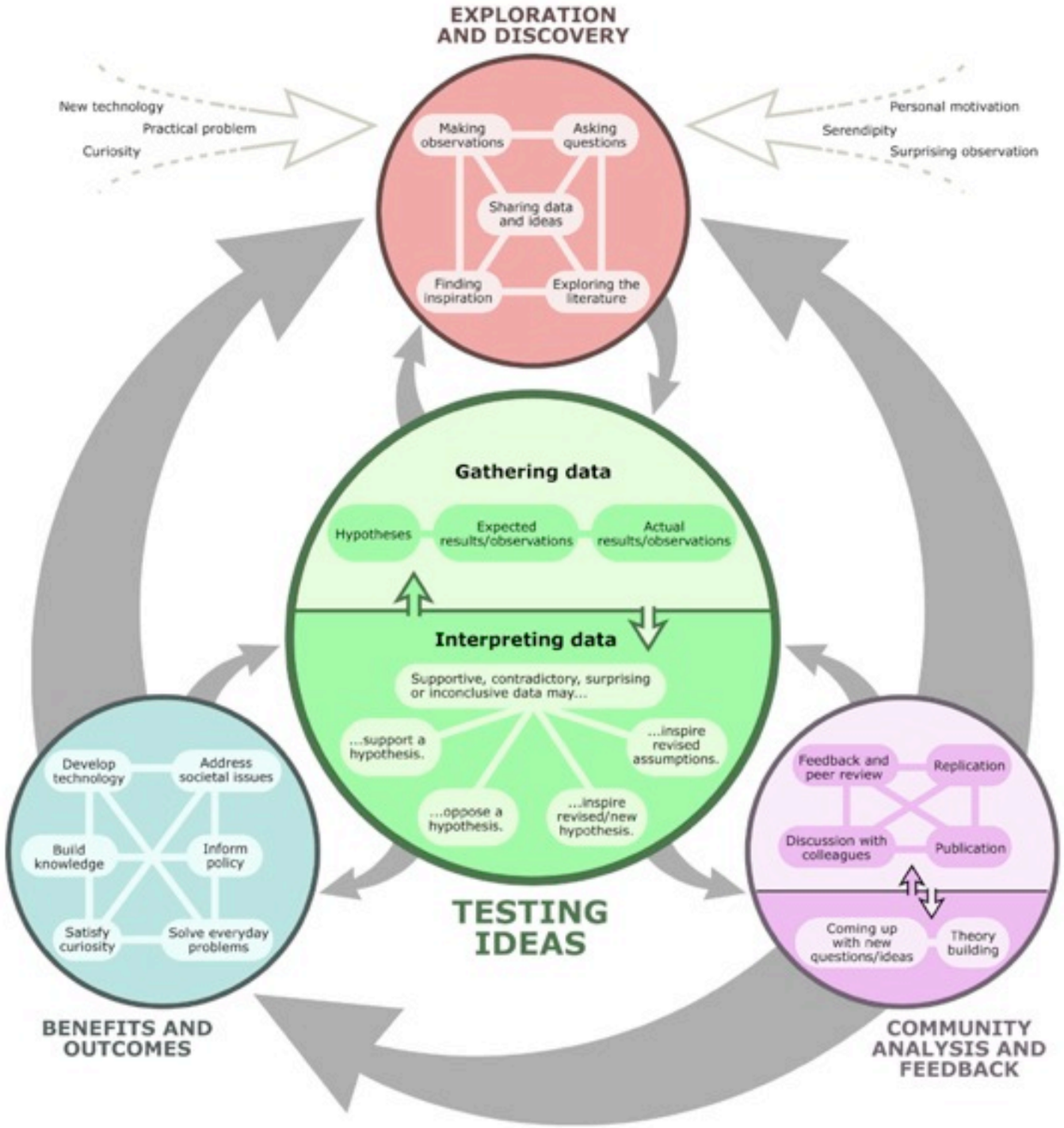


Connections Within Subject Areas
Example: Literature

- “What binds the authors together in an intellectual community is the great conversation in which they are engaged. In the works that come later in the sequence of years, we find authors listening to what their predecessors have had to say about this idea or that, this topic or that. They not only harken to the thought of their predecessors, they also respond to it by commenting on it in a variety of ways.”

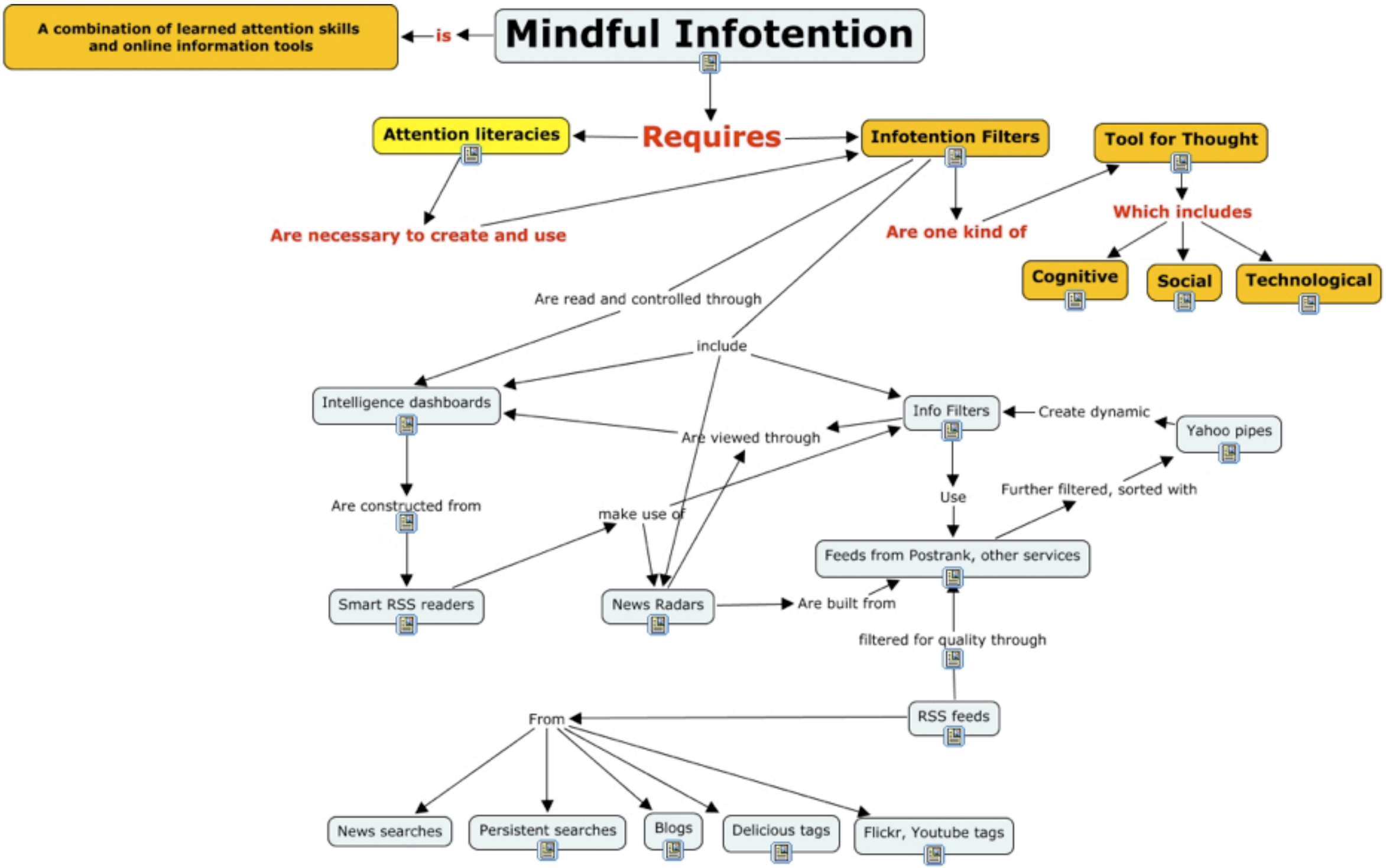
Mortimer Adler, “The Great Conversation Revisited”

Ways of Knowing
Example: the Process of Science



Ways of Knowing
Example: Making Sense of Historical Evidence

Nonsense Detection Filters
Example: Dashboards, Radars, Filters



Nonsense Detection Filters
Example: Debunking Pseudo-Scientific Analysis

Language Log Home About Comments policy

Rhetorical testosterone and analytical hallucinations

July 1, 2010 @ 9:01 am · Filed by Mark Liberman under Language and politics

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In her most recent column ("Obama: Our first female president", 7/1/2010), Kathleen Parker argues that Barack Obama writes like a girl:

> If Bill Clinton was our first black President, as Toni Morrison once proclaimed, then Barack Obama may be our first woman President. [...]
>
> No, I'm not calling Obama a girlie President. But ... he may be suffering a rhetorical-testosterone deficit when it comes to dealing with crises [...]

What's her evidence for this lack of "rhetorical-testosterone"? Along with a lot of vague stuff about how Obama is "a chatterbox" who shares with "Ronald Reagan and Bill Clinton" (!) the ability to "assume feminine communication styles effectively", the column includes exactly one relevant fact:

> Obama's [oil spill] speech featured 13 percent passive-voice constructions, the highest level measured in any major presidential address this century, according to the Global Language Monitor, which tracks and analyzes language.

If you're not a regular reader, please take a few minutes to scan our last discussion of linguistic "analysis" from Paul Payack's Global Language Monitor ("Language guru runs with the journalistic pack", 6/17/2010). According to Mr. Payack, president Obama's address on the gulf oil spill was excessively "professorial" because its average sentence length was 19.8 words. I checked on president George W. Bush' post-Katrina speech, and found that its average sentence length was 23.5 words, suggesting either that Bush was even more "professorial" than Obama, or that Mr. Payack was full of it.

So what about those passives?

The first thing to say is that there isn't the slightest evidence that passive-voice constructions are "feminine". Women don't use the passive voice more than men, and among male writers, number of passive-voice constructions doesn't appear to have any relationship at all to real or perceived manliness. The "passive is girly" prejudice seems to be purely due to the connotations of (other senses of) the term *passive*, misinterpreted by people who in any case mostly wouldn't recognize the

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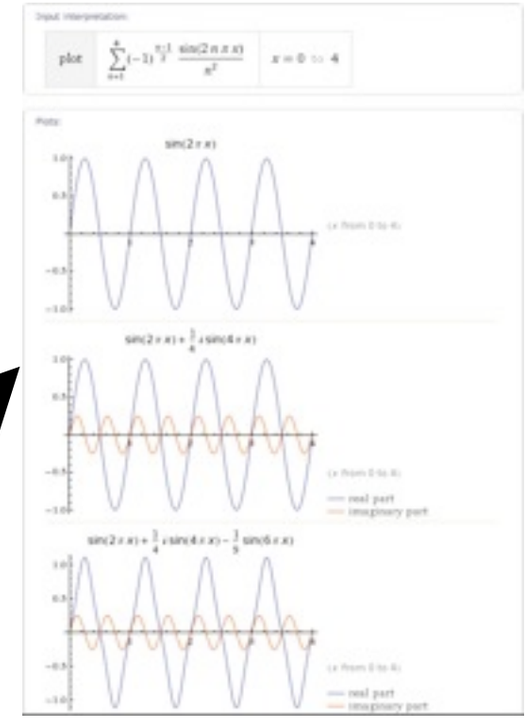
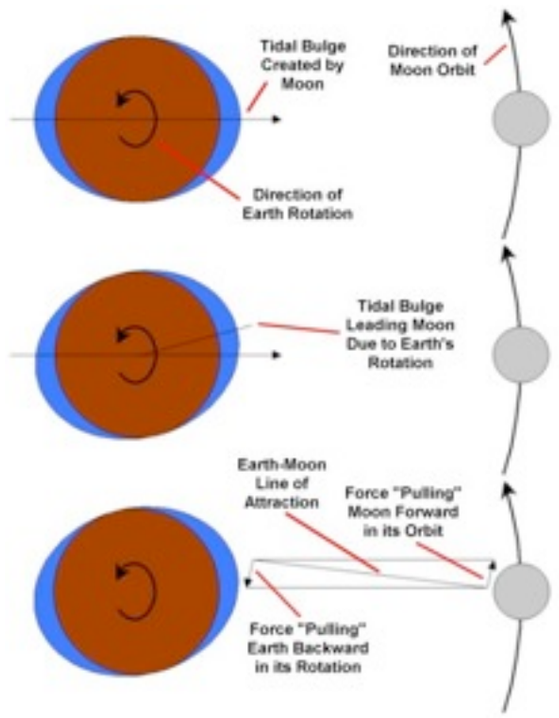
Integrating Theory and Practice
Example: Pure Math/Applied Math





Integrating Theory and Practice
Example: Sociological Theory/Network Analysis

PNAS

Multirelational organization of large-scale social networks in an online world

Michael Szell[a], Renaud Lambiotte[b,c], and Stefan Thurner[a,d,1]

[a]Section for Science of Complex Systems, Medical University of Vienna, Spitalgasse 23, 1090 Vienna, Austria; [b]Institute for Mathematical Sciences, Imperial College London, London SW7 2PG, United Kingdom; [c]Department of Mathematics, Imperial College London, London SW7 2AZ, United Kingdom; and [d]Santa Fe Institute, 1399 Hyde Park Road, Santa Fe, NM 87501

Edited by H. Eugene Stanley, Boston University, Boston, MA, and approved June 23, 2010 (received for review March 25, 2010)

The capacity to collect fingerprints of individuals in online media has revolutionized the way researchers explore human society. Social systems can be seen as a nonlinear superposition of a multitude of complex social networks, where nodes represent individuals and links capture a variety of different social relations. Much emphasis has been put on the network topology of social interactions, however, the multidimensional nature of these interactions has largely been ignored, mostly because of lack of data. Here, for the first time, we analyze a complete, multirelational, large social network of a society consisting of the 300,000 odd players of a massive multiplayer online game. We extract networks of six different types of one-to-one interactions between the players. Three of them carry a positive connotation (friendship, communication, trade), three a negative (enmity, armed aggression, punishment). We first analyze these types of networks as separate entities and find that negative interactions differ from positive interactions by their lower reciprocity, weaker clustering, and fatter-tail degree distribution. We then explore how the interdependence of different network types determines the organization of the social system. In particular, we study correlations and overlap between different types of links and demonstrate the tendency of individuals to play different roles in different networks. As a demonstration of the power of the approach, we present the first empirical large-scale verification of the long-standing structural balance theory, by focusing on the specific multiplex network of friendship and enmity relations.

complex networks | multiplex relations | quantitative sociology

Human societies can be regarded as large numbers of locally interacting agents, connected by a broad range of social and economic relationships. These relational ties are highly diverse in nature and can represent, e.g., the feeling a person has for another (friendship, enmity, love), communication, exchange of goods (trade), or behavioral interactions (cooperation or punishment). Each type of relation spans a social network of its own. A systemic understanding of a whole society can only be achieved by understanding these individual networks and how they influence and coconstruct each other. The shape of one network influences the topologies of the others, as networks of one type may act as a

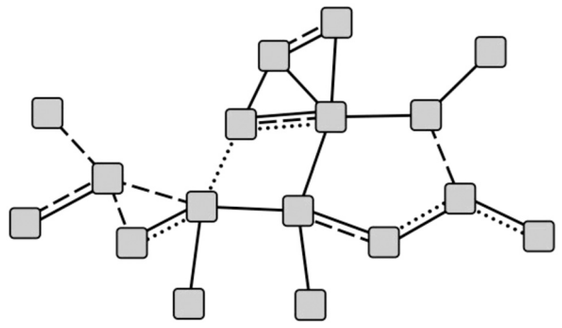


Fig. 1. Multiplex networks consist of a fixed set of nodes connected by different types of links. This multirelational aspect is usually neglected in the analysis of large social networks. In our MMOG dataset, six types of social links can exist between any two players, representing their friendship or enmity relations, their exchanged private messages, their trading activity, their one-to-one aggressive acts against each other (attacks), and their placing of head money (bounties) on other players as, e.g., means of punishment.

in the organization of large-scale networks. For example, the existence of different link types between agents explains the overlap of community structures observed in social networks, where nodes may belong to several communities, each associated to one different type of interaction (5, 6). Methodological work on multiplex networks includes the development of multiplex community detection (7), clustering (8), and other network analysis algorithms (9). The role of multiple relation types in measured social networks has recently been investigated across communication media (10), in an online game (11), as well as in ecological networks (12).

Traditional methods of social science, such as small-scale questionnaire-based approaches, get more and more replaced by automated methods of data collection which allow for entirely different scales of analysis (13–15). This change of scale has opened new perspectives and has the potential to radically transform our understanding of social dynamics and organization (16). The empirical verification of social theories such as the strength of weak ties (17, 18) become possible with hitherto unthinkable levels of precision. However, this large-scale perspective suffers from the drawback of a relatively coarse-grained representation

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  - *Center for Applied Linguistics - CALdigests* http://www.cal.org/resources/digest/index.html
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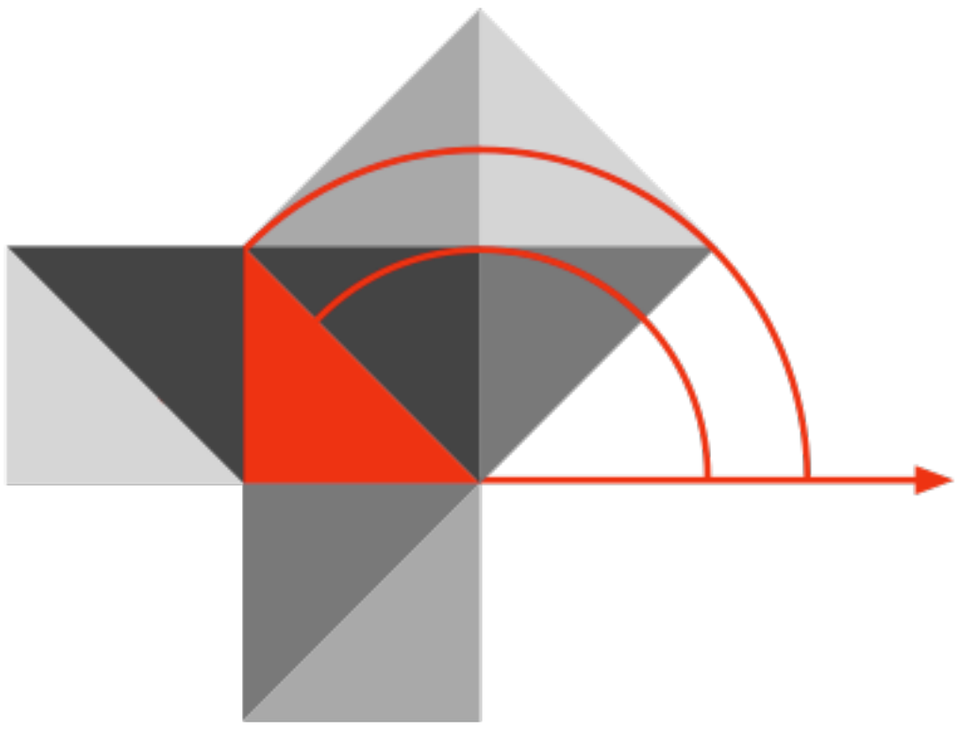

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