

Beyond e: Scholarly Communication in the Knowledge Era

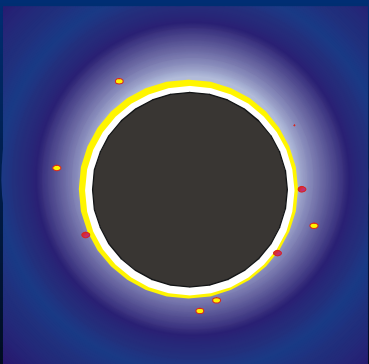
Monica Hammes

University of Pretoria : Academic Information Service

6th Southern African Online Information Meeting

Kempton Park

21 June 2001



Welcome to the Resurrection Session!



AGENDA

- Beyond e?
- The Legacy of the Information Age
- The Knowledge Era and its Intrinsic Values
- Trends
- Manifestations
- Conclusion



AGENDA

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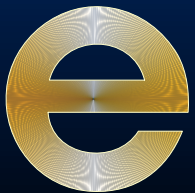


Beyond e

- eLECTRONIC
- eVERYTHING
- eXPERIENCE

(ACM: Beyond Cyberspace

Internalized --> Traits)



AGENDA

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- **The Legacy of the Information Age**
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The Legacy of the Information Age

- *If it's not on the web, it doesn't exist*
- *Instant gratification demanded*
- *Global citizenship assumed*
- *Customization expected*
- *Everything is possible and I can do it myself at a fraction of the cost*



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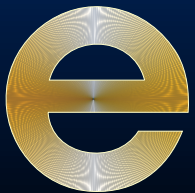


eLECTRONIC

eVERYTHING

**Knowledge
Management**

eXPERIENCE



The Knowledge Era

- Human capital replaces other assets as the main resource.

8 August 1995: MS overtook GM

- The intentional and systematic reinvention and integration of a number of valuable old structures and practices, enhanced by the new technologies of the Information Age



..and its Intrinsic Values

- *Knowledge is much more than organized information: people make the difference*
- *Knowledge belongs to and is best leveraged in communities*
- *Acting on knowledge is far more valuable than merely possessing it*
- *Sharing adds value to information*



- ☀ *New knowledge is created at the boundaries of the old*
- ☀ *Artifacts cannot replace the real experience*
- ☀ *Co-opetition becomes a reality*
- ☀ *Knowledgeable people and smart machines make a winning combination*
- ☀ *The process of knowledge creation can be reflected upon and can be enhanced*



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Trends

- *Electronic, accelerated publishing, fully interlinked, immediately available everywhere, at all times taken for granted*
- *The literature becomes fluid –
- content
- packaging*
- *Copyright in its current form loses its grip.*



- *Refereed and unrefereed material will exist side by side and play different roles in the scholarly process.*
- *New business models will be developed and cost may become a matter of choice.*
- *The knowledge circle will “collapse” : a variety of role players and many new as yet unknown roles will be developed.*



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Manifestations -1

eJournal Functionality

- Virtuality
- Personalization
- Interaction
- Advanced searching and browsing





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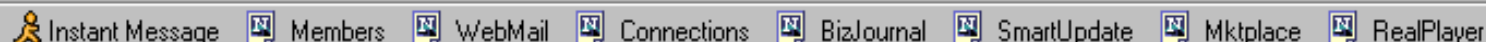
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My BMN, Exit, Feedback, Help

My Virtual Journals: My Journal List, Create a journal, Edit Journal Setup, Delete a Journal, Institutional Trial

Quick Site Search: Search box, GO button, BioMedNet dropdown, Advanced site search link

Create a Virtual Journal

Overview

Follow the four simple steps to create a new Virtual Journal. You should set up:

- ▶ 1. Broad **subject areas**;
- 2. Specific **search terms**;
- 3. A **name** for this new Virtual Journal;
- 4. **E-mail alerts** - do you want to be alerted to new articles in your Journal.

Step 1: broad subject areas (optional)

Select the subject areas you would like to be included in this virtual journal. All articles have been assigned to one or more area by the **Trends** and **Current Opinion** editors.

Because you can set up several Virtual Journals, you can set up **different journals** for each of your **areas of interest**.

This step is optional - in step 2 you can use your own search terms instead.

- [Abstract](#)
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- 6. [Practice II: Theoretical Perspectives](#)
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PrePrint under review

Published
20 May, 2000

Updated 14 April, 1999


Submission to Journal of Interactive Media in Education

WebGuide: Guiding Collaborative Learning on the Web with Perspectives

[Gerry Stahl](#)

Center for LifeLong Learning & Design
and Institute of Cognitive Science

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- ▶ ● [Originality & Importance of Ideas](#) (JIME Editor (Gary Boyd)) 19 May 2000
- ▶ ▶ [Importance/ Originality: Who leads the dance?](#) (Helen Chappel-Hayios) 11 Sep 2000

▶ ▶ ▼ 👍 **Re: Importance/ Originality: Who leads the dance?**
 (Gary Boyd, [boydg](#)) 12 Sep 2000 17:00 GMT

Regarding Helen's paragraph three which has a sentence flying off into space, which she asked me to correct: ""buried in the sourcecode and affordances of a software artefact are countless lessons and insights" (section 7) is a very timely and important one indeed.". I don't seem to have any correction tools available so I merely repeat it here. One thing which is needed are CASE tools which get programmer analysts to make such implicit knowledge as explicit as practicable. GB.

[Add Comment](#) to: "Re: Importance/ Originality: Who leads the dance?"

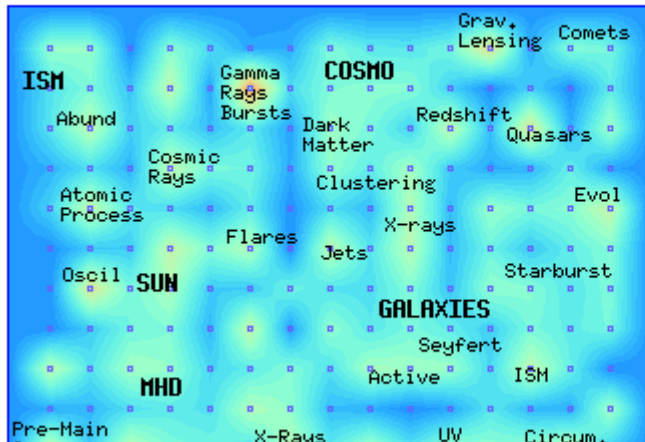
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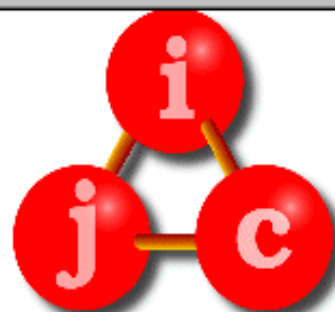
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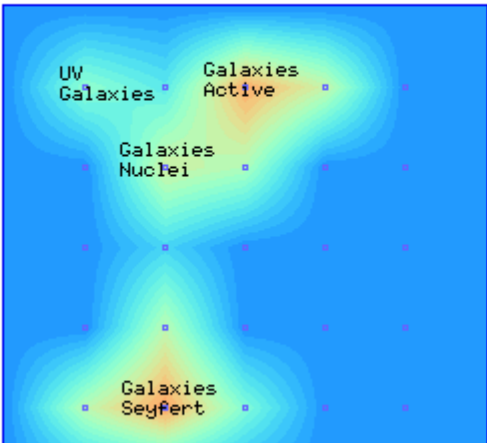
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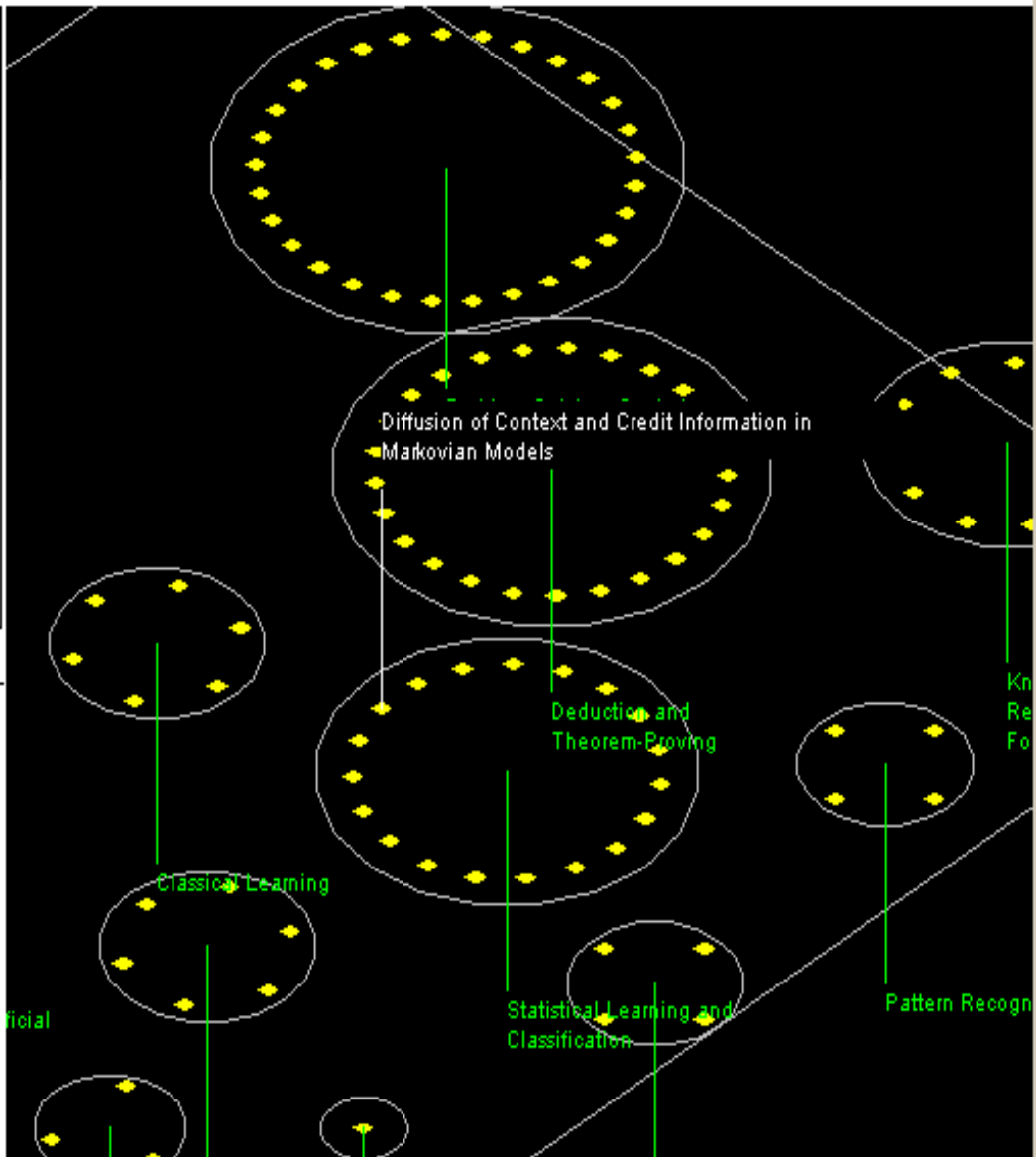
Y. Bengio, P. Frasconi. "Diffusion of Context and Credit Information in Markovian Models." Volume 3, pages 249-270.

Abstract: This paper studies the problem of ergodicity of transition probability matrices in Markovian models, such as hidden Markov models (HMMs), and how it makes very difficult the task of learning to represent long-term context for sequential data. This phenomenon hurts the forward propagation of long-term context information, as well as learning a hidden state representation to represent long-term context, which depends on propagating credit information backwards in time. Using results from Markov chain theory,

Search By Title By Author Options

Log user data

- Object-style manipulation
- Viewpoint-style manipulation



Manifestations - 2

Web neighbourhoods and communities

Neighbourhood:

Facts, ideas, techniques, specialized language, way of thinking, perspective, background knowledge, accumulated common wisdom and appropriate tools



Manifestations - 2

Web neighbourhoods and communities

Community

Unite people from all over the world, sharing and creating knowledge, developing a sense of joint enterprise and meaningful relationships, and for providing access to people, resources and tools.



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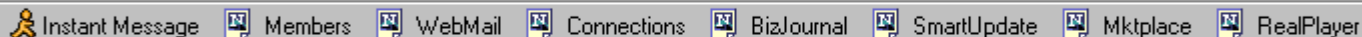
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Manifestations - 3

eArchives and their offspring

- A service created by a community for their own use.
- Flexible enough either to co-exist with the pre-existing publication system
- Dissemination is fast and can accommodate concurrent or subsequent peer review



Manifestations - 3

eArchives and their offspring

- Direct feedback creates an automatic form of peer review to which users respond quickly by creating new versions
- Archives can form the basis of a new scholarly communication model providing general free access to the basic information



Manifestations - 3

Three layer model

1. eArchive
2. Metadata
3. Knowledge web

virtual journals

grading according to importance

quality control

indications of interdisciplinarity

pointers to shortest routes

relationships



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Conclusion

Welcome to Opportunity Space!



Thank You

monica.hammes@ais.up.ac.za



New Economy will be superseded by n-Economy

- ◆ Content: Create once, publish everywhere
- ◆ Community connectivity knowledge price/event
- ◆ eCommerce
- ◆ Convenience
- ◆ Customisation
- ◆ Communication
- ◆ Collaboration
- ◆ Scarcity --> Abundance
- ◆ Collaborative knowledge workers

