

KnowldgWORKS News
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KnowBits

- a. Microsoft and Knowledge Management

Microsoft has entered the knowledge management fray. Office 2000 has become "knowledge-enabled." Microsoft has put some web content out on their site about this. Here are some links:

www.microsoft.com/dns/km/KMpract.htm A white paper entitled "Practicing Knowledge Management." You can find Microsoft's definition of knowledge management in this paper.

www.microsoft.com/Office/enterprise/value/dns.htm Office 2000 and Knowledge Management

www.microsoft.com/dns/km/default.htm A page that contains a list of case study links demonstrating the use of Microsoft products for knowledge management.

www.microsoft.com/billgatges/speeches/05-19ceosummit.htm A transcript of a speech by Bill Gates describing his vision of how Microsoft technology can enable "thinking work."

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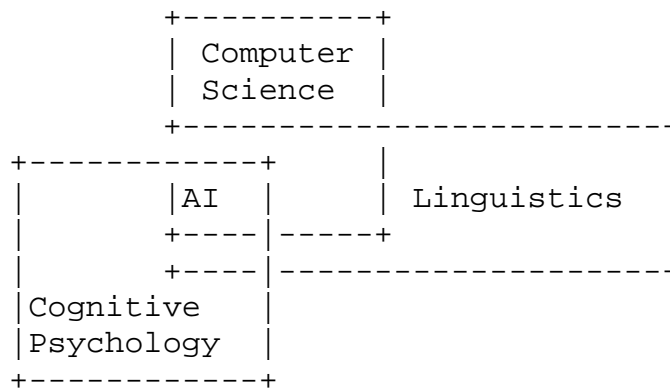
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Topic: General
Knowledge Work and AI

When I first heard of knowledge management, and listened to its descriptions, I was struck by how closely it seemed to me to be allied to the work done in the field of Artificial Intelligence

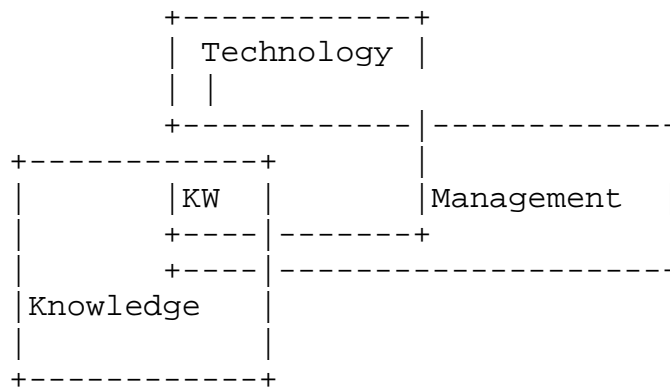
(AI). If you think about AI only as a technology then of course its place in any sort of knowledge work is limited as is any other technology. On the other hand, if you know anything about the underpinnings and philosophies of AI, the relationship bears close examination and AI should not be dismissed out of hand as just another technology.

On the surface, the resemblance between AI and knowledge work is astounding. Looking at it naively one sees that just as knowledge work is difficult to explain, so is AI. One could almost jump to the conclusion that the reason that both are difficult to explain is the same. Both disciplines deal with human intelligence, and any topic dealing with human intelligence will necessarily be both challenging to explain and challenging to implement.

The foundation of AI is based on a triumvirate of supporting disciplines: cognitive psychology, linguistics, and computer science.



The overlap of these three disciplines supports or creates what is AI. In a similar way, knowledge work can be identified as a triumvirate of disciplines. These would be knowledge, management, and technology.



If you think about it, these three disciplines have a close relationship to the three disciplines of AI. Specifically we could identify relationships between management and cognitive psychology, knowledge and linguistics, and technology and computer science.

Management at its most basic level consists of cognitive psychology processes supported by linguistic processes, in the form of verbal communications, specifically adjusted to management processes. The knowledge aspect of knowledge work is related to cognitive psychology (representation and processing) and computer science (algorithms, representation, and implementation). Lastly, technology is allied with computer science because in the case of knowledge work, technology is primarily computer-based. We can say that AI and knowledge-work are homomorphic (sharing conceptual principles).

Although AI might not be the ultimate answer to the problems of knowledge management, you might consider drawing from the extensive contributions of AI to represent knowledge. For example, you might choose to use frames, semantic networks, rule-based knowledge representation, or neural networks as a means to represent knowledge captured knowledge.

But That's Just A Technology and That's Easy

Interestingly, I hear lots about why knowledge work is so difficult to explicitly introduce into an organization. Even so, there are many people who continue to describe knowledge management as important and key to business. AI technologies might provide tangible deliverables making knowledge work more easily understood. Why not view AI as a concrete way to provide an approach to the introduction of knowledge work?

For example, suppose you work in an organization that uses an expert in a particular domain and there are so few experts in this field that your expert is the only one based in the United States. Because of the esoteric nature of the expert's discipline, there are no new students in the pipeline, and to make matters worse, this individual must retire soon due to company policy. What do you do?

You could go to management and suggest that a knowledge effort would be appropriate; that it would be a way to retain the expert's knowledge. Based on management's familiarity or lack thereof, with knowledge work this request might not be sufficiently tangible to win management support.

A slightly different approach might be to recommend a project to codify the expert's knowledge in such a way that the expert's knowledge could be used. You could show bonified examples (frames), and show how the expert validated these. Furthermore you could show ways these could be readily used for knowledge sharing and transfer (up until now this knowledge only rested in the expert's mind). By doing this and showing tangible and concrete deliverables, management becomes better able to understand and support projects like this. Remember for every one enlightened manager there are hundreds of those who are neither enlightened nor interested.

I've tried to describe one view of the relationship between AI and knowledge-work. The point, I think, that is most important is that AI has a rich history of exploring knowledge-based

problems. Although AI cannot claim to have found solutions to all problems there is a rich base of formalisms and methods supporting knowledge work. When asked the HOW-question, we should not lose sight of this rich background. As knowledge work professionals these techniques should be as important to you as those considered more relevant by many because they are more tangible.

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Next week's issue: Back To Basics

Previous issues of the knowldgWORKS News are archived at <http://www.accsys-corp.com>.

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