

## Successful One-Day Spring Meeting on Content Enrichment Executive Committee Considers ASIDIC's Future Tim Ingoldsby Retires From AIP

**F**or its spring meeting, ASIDIC held a one-day seminar on content enrichment at the LYRISIS conference center in Philadelphia, PA on March 23. The Program Committee consisted of **Tim Ingoldsby** (American Institute of Physics), **Jeff Massa** (YellowBrix, Inc.), **Jim Hohman** (TEMIS, Inc.), **Matthew Turner** (Mark Logic), **Darrell Gunter** (Collexis), and **Marjorie Hlava** (Access Innovations). The one-day seminar was a new format for ASIDIC meetings, and judging from the reaction of the attendees, it was well received. About 40 attendees heard a keynote address by **Sue Feldman**, Research Vice President at IDC, an introduction to semantic technology by **Thane Kerner**, CEO of Silverchair, and then four case studies in which publishers and their technology partners described how they adopted a smart content strategy to improve their offerings. The meeting concluded with a panel discussion led by **John Blossom**, President, Shore Communications and an endnote address by **Steve Sieck**, President, SKS Advisors. A summary of the presentations appears below.

## CONTENTS

Association News.....	2
Future of ASIDIC	
Tim Ingoldsby Retires	
President's Column	
New Members	
Photo Page	
Technical Program Summary.....	5
Full Members.....	12
Associate Members.....	13
Spring Meeting Attendees.....	14



## ASSOCIATION NEWS

### Future of ASIDIC

The Subcommittee considering the future of ASIDIC recommended that proposals for a merger be solicited from other organizations, and a press release to that effect was issued. Responses have been received, and the Executive Committee is considering them and will make a recommendation to the Membership. See the President's Column below for further details.

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### Tim Ingoldsby Retires

ASIDIC President **Tim Ingoldsby** retired from the American Institute of Physics on April 9. He will continue his involvement with ASIDIC for the remainder of his term. His new address is PO Box 224, Olpe, KS 66865, phone (516)-983-0399, and his e-mail address is tim\_ingoldsby {at} msn {dot} com.

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### President's Column

*By Tim Ingoldsby*

Dear ASIDIC Member,

In this newsletter you will find a report of the Spring 2010 meeting, a very successful meeting on the topic of semantic markup. We tried something different for this meeting, shortening the meeting to one full day, eliminating the social events that surround a typical ASIDIC meeting, and choosing a location that would allow most participants to make a "day trip" to attend the meeting, lowering the travel costs that companies would experience. While I say

the meeting was a "success," I make that statement based on overwhelmingly positive survey feedback from attendees, not from the fact that the meeting drew a huge audience. Indeed, despite what I would judge to be better than our average promotional, marketing efforts, the meeting only drew about 40 registrants. (Because of the reduced expenses, we were able to do slightly better than break-even despite the small number of attendees, so the meeting can also be judged successful from a financial standpoint.)

I give you this detail in order to make a point about why your Executive Committee has decided to seek a merger with another not-for-profit association (or a commercial sale of ASIDIC assets) that will result in the winding down of ASIDIC operations. While ASIDIC has continued to fulfill its mission of offering forward-thinking, intellectually stimulating programs, in recent times it has become much more difficult to attract the attendance necessary to operate at break-even or a small surplus. Two primary factors led to our decision to consider winding down operations. Mergers within our industry have reduced the number of candidate organizations, meaning that we are going to the same organizations time after time to provide program committees, financial sponsorship, attendees, and speakers. At the same time, the competition we face from the programs of other societies, corporations like O'Reilly and (expanded) programs from Information Today, Inc. and others have created ever greater competition for the meeting attendance from the group of individuals that ASIDIC used to be able to count on. These fac-

tors have been discussed over the past couple of years (and reported to you, our members, during our annual business meeting). We have finally reached the conclusion that we should act by issuing a call for merger or acquisition talks with suitable information industry entities.

I am pleased to report that ASIDIC has received multiple inquiries and, as I write this, multiple credible proposals. The Executive Committee will discuss these options and meet with the interested organizations to discuss potential terms. Then we will prepare a recommendation for action by ASIDIC membership that should reach all of you sometime in the coming few months. I thank those of you who have commented to us since the merger press release was issued for your helpful, understanding comments. I assure you that the Executive Committee will continue to consider the best path forward as the one that gives us the best chance to preserve the principles upon which ASIDIC was founded over 40 years ago.

With kind regards,



Tim Ingoldsby  
President



## New Member

**A** SIDIC welcomes Collexis as a new member:

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Representative: Darrell W. Gunter,  
Chief Marketing Officer  
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**ASIDIC PHOTO PAGE**



ASIDIC President Tim Ingoldsby Opens the Meeting



Opening keynote speaker Sue Feldman



Thane Kerner



John Blossom



Endnote Speaker Steve Sieck

## TECHNICAL PROGRAM SUMMARY

**Note: PowerPoint slideshows are available for most of the presentations. Visit the [meeting Web page](#) to select the one you wish to view.**

### Program Introduction

For publishers, the race to compete in the face of technological challenges has never been greater. One critical component of the new publishing strategy is making content “smarter.” Smart content delivers added value to readers and can be packaged by publishers and offered through any channel they choose. Innovative publishers are quickly adopting these technologies to find new customers, add value to their offerings and differentiate themselves from their competitors. The spring ASIDIC meeting showcased practical approaches to generating smart content. Publishers and technology partners presented four successful case studies that solved real business issues. Today, Web 2.0 is all about interactivity. Web 3.0 will be about semantics and knowledge extraction by machine. For this to happen successfully, documents must be properly structured and contain richly tagged information. Semantic markup will give us the tagging, but publishers must create the underlying ontology for their content.



### KEYNOTE ADDRESS

#### Smart Content: Back to the Future?

**Sue Feldman**

*Research Vice President, IDC*

We are on the cusp of a big change in the computing world. We can do things now that are not possible with standard relational databases, like *ad hoc* querying and resolving language ambiguities. We have the next generation of technology and are well able to understand its potential.

Smart content includes the representation of

the content as well its meaning, which results in more accurate search, finding exactly what you need, and the ability to explore and navigate very large sets of information and do analytics. We are creating metadata about peoples’ actions, technologies, and locations to understand how an organization works. Metadata may be very useful in ways we have not considered, and it may lead to new revenue streams. How do we encourage serendipity and discovery? One way is to give people things adjacent to what they are looking for.

Computers are not good at language, so terminology mismatches across both internal and external repositories still occur. This is a breakdown in how we get information out of computers. Information is a form of interaction between people and includes social relationships, building networks, and answering questions. It can also be used to make unexpected connections; for example, the e-mails in the Enron case were a boon to the text analytics industry.

Is there a demand for information? An IDC study found that most people spend 3-7 hours/week searching for information, and this has not changed much over 9 years. But 10% of the respondents reported they searched over 14 hours a week. These are *not* librarians.

Colleagues used to be the major source of information, but now Internet search engines have become heavily used. Only 6% of the survey respondents reported that they use company intranets, despite all the money and resources that have been invested in them. Information overload is getting worse and is growing exponentially.

We must think of tools, not technologies. Ease of use is important, and content must

be smart so it can be analyzed. Sense analysis (for example, “what do people think of my work?”) is growing in importance.

The digital marketplace is driven by ad revenue, one-to-one marketing, a low initial investment required to participate, the need for access anytime anywhere from any device, and long tail marketing. People will settle for whatever is available to them, but if better sources (such as specialized databases) are available, they will use them even if they are not well known. Successful market players understand the business models and the relationships between the types of participants. They can be categorized into three types:

- Search engines are the information *gateways*—their job is to be a starting point and make no judgment about values of sites. As soon as they become biased, they run into trouble. Gateways do not know who their audience is.
- *Hubs* create specialized networks of sites, aggregate, and select information. Publishers are hubs. Selection is the next great frontier because people are overwhelmed with information.
- *Nodes* are endpoints, destinations, and users, not ecosystems.

Accuracy is more important than volume, so less information will be preferred. Personalization is also important: how can information be re-ranked for each user? We do not know how to deliver content visually for quick understanding. Educating users continues to be a big problem. The more ways people can find you the better, and the more you give away, the more you will prosper.



## Semantic Technology 101

Thane Kerner

*CEO, Silverchair*

**B**reaking down content into data and then communicating between data sets is important and will allow web content to communicate. Web 1 was the web of documents; Web 2 is the web of people; and Web 3 will be the web of data. The semantic web allows us to think of our content as data, not documents.

XML can be used to reverse engineer content into data. It started as a production technology, but it is dumb. Semantic XML allows XML to become smart. It is consistent, rule-based, and is a method for exposing the meaning of your data. Tagging is the insertion of semantic information into XML. Tags become part of the content set and travel with the content. Content is written for human, not computer, understanding.

Precision is critical, especially in some areas like healthcare. Retrieval is a very broad concept and includes more than searching or browsing. We must have dramatically smarter data to improve retrieval. Content must be normalized using taxonomies so that consistent terms are used across content sets. If development stops at the enterprise wall, much content from the outside world will be precluded: you must think about what your domain structure in the future will be. The more semantic tagging can be driven into the workflow, the cheaper the process will be.



### **Case Study 1: Using our own information to forecast our direction**

#### **Found in Space: Creating and Visualizing IEEE Document Space**

**Bill Pickering**

*Sr. Manager, Online Services, IEEE, and*

**Richard Klavans**

*President, SciTech Strategies*

IEEE has a wealth of data in the log files of its Xplore Digital Library, which provides access to over 2.5 million documents, including IEEE journals, transactions, letters, magazines and conference proceedings, IET and other third party journals and conference proceedings, IEEE Standards and IEEE educational courses. IEEE wished to determine how this data could be exploited to answer questions such as:

- Is there a way to forecast our direction using our own information?
- Where is the industry headed?
- Does our coverage match our mission and vision?
- Can we become smarter about our data and potential markets using our collection in new ways?
- Are the societies publishing and talking about what their charter indicates they cover?
- What are the trends – are topics emerging/cooling?

IEEE developed a thesaurus in cooperation with Access Innovations, Inc. It was used to auto-index 1.2 million Xplore records with the IEEE Thesaurus, MeSH and DTIC rule bases. The indexing is typically about 90% accurate, meaning that only about 10% of the terms need to be spot checked by humans.

To enhance its data further, IEEE turned to SciTech Strategies, Inc., which has devel-

oped bibliometric models of very large databases produced by Thomson Scientific and Elsevier. Disciplinary maps created from this data provide a visual representation of research communities within a discipline. The IEEE Thesaurus space was mapped and an XML database was created. The map includes data from disciplines adjacent to those covered in the Thesaurus, which has allowed IEEE to identify gaps in its journal coverage expand its coverage appropriately.



### **Case Study 2: Enriching the editor's experience with peer review**

**Judy Quong**

*Sr. Associate Editor, American Association for Cancer Research (AACR), and*

**Darrell Gunter**

*Chief Marketing Officer, Collexis*

Founded in 1907, the AACR has over 29,000 members in 89 countries and publishes six journals. Last year, AACR received 11,000 manuscripts, sent 7,500 to reviewers, and published 3,300 of them. A volunteer editorial board identified reviewers by either using AACR's online submission or review system or by searching on Google or PubMed. This was time-consuming, and the resulting pool of reviewers was limited.

AACR's options for improving their reviewing system were:

- Enhance their current system,
- Create a new system themselves, or
- Purchase a system.

They purchased the Collexis Reviewer Finder because it could be easily interfaced with their in-house processing system, greatly expanded the pool of potential reviewers using the Collexis BiomedExperts Database, and could be configured to operate automatically.

People want to get access to information with as few clicks as possible, and semantics helps to do that. The Collexis BiomedExperts Database contains expert profiles, which are generated automatically from documents and publications. It also checks for potential conflicts of potential reviewers with manuscript authors and generates a visualization of the relevant concepts in an article (a “digital fingerprint”), which can be matched against the experts database.

The Collexis system was tested by 12 AACR editors who were pleased with the results, so it was successfully introduced into AACR’s peer review process on a journal by journal basis.



**Case Study 3: Getting references right — How semantic technology helps linking, findability, and analysis**

**Beverly Jamison**

*Sr. Director, IT Architecture and Publishing Solutions, American Psychological Association (APA) and*

**Matthew Turner**

*Principal Consultant, Mark Logic Corporation*

References are famous for supporting an author’s claims, leading the reader to interesting new content, and showing which authors an article’s author reads. They may be even more famous for their significant proportion of errors. Application of semantic technologies to references has shown that references can be made very useful. For example, they can help people find content related to the material being read, locate desired subjects, or used to conduct analyses.

The APA worked with Mark Logic to apply semantics to their database and develop a

smart repository of them. It was necessary to know the anatomy of a reference, then analyze it and link it in the repository. The Mark Logic server uses XML extensively to store and create information products. It understands XML structure and semantics and can change or adapt as new semantic rules are added. APA’s reference repository is the center of many processes, allows matching and control of references, and provides unique views of its content. Users are thus able to find the content they want and also find new information that they were not aware of. APA is able to leverage its content and see trends and relationships in it.



**Case Study 4: Enhance the user’s experience with semantic “smart linking”**

**Jim Hohman**

*VP, Sales and Publishing, TEMIS;*

**Richard Fusco**

*Director, Content Strategy, McGraw-Hill;*

**Michael Lavitt**

*Director, Editorial and Online Production, AviationWeek*

The information distribution landscape is changing. Information is growing exponentially; a wide array of delivery platforms is available; audiences are more fragmented than ever; barriers to entry are lower allowing more competitors to easily enter the market; the advertising-supported model is shaky; and users expect content to be free. The price of bad decisions in such an environment is quick failure, but some information providers are getting it right, and McGraw-Hill is one of them. Text mining and content enrichment are core technologies in its efforts.

Content enrichment is especially important

because it can help eliminate manual data tagging, integrate content that exists in a variety of databases, maintain subsets of content for new product offerings, and add rich metadata to the content. McGraw-Hill worked with TEMIS Inc. to develop two information services:

- Platt’s is a major supplier of energy and metals information and prices in physical energy markets. It delivers more than 20,000 daily news flashes, price assessments, and analytics products. Platts uses TEMIS’s products to build and refine taxonomies, tag editorial content, and mine its archives to develop new products.
- The Aviation Week Information Network (AWIN) produces aviation, defense, and space technology information. Four magazines, three newsletters, and databases of company information were integrated into a paid information portal. Articles were tagged and the content organized using a taxonomy, with links to other McGraw-Hill products.



**PANEL DISCUSSION**

(Moderated by **John Blossom**  
*President, Shore Communications*)

**S**emantics is the key to smart content; it provides improved recall and precision of search-based content and better products. We need to think of searching as not just search engines but a gateway to search-driven services. Authoritative contexts will always trump authoritative collections. The ability to do well at the moment of search is scarce.

The new aggregation model is to be where your clients are. The “factory” is anywhere the customer wants it to be, and information channels are often dynamic and user-controlled. Building value therefore requires

collaboration with audiences. We need to think about exposing our content cost-effectively where our audiences are. Where will we make money in all this? How fast? What is going to work? Here are some questions to think about:

- What are the best and most interesting business models that smart content generates for publishers?
- How does smart content call us towards challenging models? Are you “gateway”, “hub” or “node”?
- What types of new content and services does smart content lead us towards?
- How do smart content technologies change the way you think about the future of your organization?

Here are some comments made by the attendees:

Darrell Gunter	Users are saying “How will I find the information that is right for me at the right time?” Semantic technology is the first step in the process. General search engines are first, but we need to get the value added part.
Dick Klavans	Where are the pain points with users? Where will they be willing to pay significant amounts of money for the information? Are you reducing pain in the editorial process?
Richard Fusco	We must keep our present customers. This technology will help with that. Growing is a top priority for any business. We have a lot of content and must have the ability to mine it and package it.

Jim Hohman	We are sitting on years of information that might have value for research and which will generate revenue.
Mike Lavitt	We need to help customers use the information they already have.
John Blossom	Your content will be in the mix with that of others no matter what.
Beverly Jamison	Findability will help customers with their full text.
John Blossom	We have mobile, e-books, and video all of which can be integrated into new platforms. E-books are young in their development but are in drab packages. Smart technology can be used to engage customers. Think about platforms. How do we move from a search engine to a rich content platform?
Darrell Gunter	Look at the ecosystem of your community. Everybody brings unique resources. You will have to work with your competitors.
Jill O'Neill	I do not consume content the same way I did just five years ago. Today's interfaces aren't like the ones that used to be on platforms. Everyone has changed the way they interact with content. That applies to everyone, not just the younger workers.
John Blossom	We are in the knowledge transfer and expertise business, not the publishing business any more.

## ENDNOTE ADDRESS

### Smart Content Technologies in Perspective: What Have We Learned and Where Are We Going?

Steve Sieck

*President, SKS Advisors*

The Web has moved far beyond a collection of linked documents, and its definitions are expanding. "Smart content" and "semantic content technologies" are becoming the norm, leading to increased ROI through better discoverability, better product integration and customization, more effective resource management, and other capabilities. The incorporation of social media is also having a major influence on today's web development.

Semantic content technologies include taxonomies, XML repositories, data analysis, and neural networks, all of which allow applications incorporating semantic search, faceted browsing, text mining, and data visualization to be created. Semantic content is particularly appropriate for organizations with large data sets to manage (healthcare, government, etc.), and making that content accessible is a key role that publishers can play. "Semantic advertising" is a new marketing trend; advertisers will not bid on words and phrases as they do today but on concepts and relationships. Semantically enhanced listings may become more valuable and would be able to command higher revenues from advertisers.

Here are some things that publishers can do to meet current needs of industry:

- Start simply and improve functionality incrementally,
- Expect greater things of your authors,
- Exploit your existing in-house skills fully,

- Use established standards wherever possible,
- Publish raw datasets to the Web,
- Release article metadata, particularly reference lists, in machine-readable form, and
- Move forward with agility and realism.



## ASIDIC Full Members

<b>Organization</b>	<b>Representative</b>
Access Innovations Inc	Jay Ven Eman
American Economic Association	Drucilla N Ekwurzel
American Institute of Physics (Retired)	Tim Ingoldsby
American Psychological Association	Linda Beebe
Annual Reviews	Jenni Rankin
BSI British Standards	Peter McKay
CABI Publishing	Andrea Powell
CAS	Chris M McCue
CEDROM-SNI	Mauricio Fernandez
Copyright Clearance Center	Tracey Armstrong
Defense Technical Information Center	Carol E Jacobson
EBSCO Publishing	Mark Herrick
Gale (Cengage Learning)	John Barnes
Getty Research Institute	Terence Ford
Grab Networks	Art Bushnell
HTC Global Services Inc	Hemant Talwalkar
IEEE	Elizabeth Moscara
Information Today Inc	Thomas H Hogan
INIST-CNRS	Raymond Duval
Inspec Inc	Erica Mobley
IOP Publishing Inc.	Melanie Faithful
Marcinko Enterprises, Inc.	Randall W Marcinko
Mark Logic Corporation	Ann Smith
National Institute of Standards and Technology	Barbara Silcox
Nerac Inc	Michael Mahoney
NewsBank Inc	Michael G Walker
Newstex LLC	Larry F Schwartz
NTIS	Donald H Hagen
OCLC	Suzanne Kemperman
ProQuest	Anthea Gotto
Really Strategies Inc	Barry W Bealer
Sage Publishing	Lettie Y Conrad
Temis Inc	Eric Bregand
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US Patent & Trademark Office	Ed Johnson
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Information Sources Inc	Ruth K Koolish
Informed Strategies	Judy Luther
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