

FSRC Food Safety Information Infrastructure Project: Phase 1

Workshop on Research Community's Role in Collection, Access and Sharing of Food Safety Information Baltimore, Maryland | February 1, 2007

SESSION 3

1:15-3:00 pm

**Accessibility and timeliness of data generated by the research
community**

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The purpose of this session is to discuss how food safety information generated by the research community is made available to stakeholders

Questions for discussion:

- What are the strengths and weaknesses of current approaches to disseminating food safety data generated by the research community?
- What are the constraints for improving the timeliness and accessibility of data generated by the research community?
- What are the opportunities for improving the timeliness of and access to data generated by the research community?

"The Man of Science appears to be the only man who has something to say just now—and the only man who does not know how to say it."

-Sir James Barrie

Robert A. Day. 1979. How to Write and Publish a Scientific Paper. ISI Press, Philadelphia, PA. 160 p.

Current Approaches to Disseminating Food Safety Data Generated by the Research Community

● Audience:

- Scientists

- Industry

- Consumers

- Progress reports

- Final reports

- Abstracts

- Conferences

- Refereed papers

- Trade magazines

- Bulletins

- Fact sheets

- Books

- Electronic forms

- Web pages

- Training games

- Extension education/outreach

- Integration

SCIENTIFIC PUBLICATION

- ➡ **Original research must be published**
- ➡ **Publication completes process**
- ➡ **Valid publication:**
 - **Published in the right place**
 - **Available without restriction**
 - **Available for screening**
 - **Permanent**
 - **Assess observations**
 - **Repeat experiments**
 - **Evaluate intellectual processes**

Robert A. Day. 1979. How to Write and Publish a Scientific Paper. ISI Press, Philadelphia, PA. 160 p.

SCIENTIFIC PAPER

- ➡ First publication of original research results
- ➡ Peers able to repeat and test conclusions
- ➡ Readily available document
- ➡ Accessible

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Steps in Scientific Research Process

- **Generation of data**
- **Analysis of data**
- **Interpretation of data**
- **Discovery and creation of knowledge**
- **Synthesis of document**
- **Peer review:**
 - **Guarantee quality...**
 - **Trusted material**
 - **Improved document**
- **Dissemination of information**
- **Sharing of information**
- **Use of information**

Scientific Publication

- **Intellectual property**
- **Measures productivity**
- **Affects promotion**
- **Influences reputation**
- **Financial rewards**
- **Intellectual rewards**
- **Needs to be made public**
- **To be shared**
- **To be used for the common good**

Print Scientific Publication

Advantages:

- Peer review certification
- Still needs validation
- Proper archiving
- Permanent
- Long-term accessibility
- Open access...

Print Scientific Publication

● Disadvantages:

■ Costly

■ Slow process; Who is responsible?

◆ Journal staff

◆ Editor

◆ Reviewers

◆ Authors

◆ Publisher staff

◆ Accountant

◆ All

◆ Could the delay be intentional

● Work overload

● Information overload

Print Scientific Publication

Issues for consideration:

- **Open access**
- **Slow speed**
- **High costs**
- **Web publishing**
- **Are journals still needed**
- **What is their future**
- **Can they be improved**
- **Should they be changed**
- **What changes**
- **Who should be in control of journals**
- **Who pays the costs**

Print Scientific Publication

- **Ethics and scientific fraud**
 - **Plagiarism**
 - **Redundant or duplicate publication**
 - **Data falsification**
 - **Data fabrication**
 - **Conflict of interest**
 - **Authorship issues**
- **Animal welfare issues**
- **Bio-safety issues**
- **Authors rights**
- **Reviewer integrity or conflict of interest**
- **Commercialism**
- **Sensitive nature**

Publishing Giants

- Only few
- Publishing giants vs. scientific (“learned”) societies
- Availability of information
- Intellectual property protection
- The rights of scientists
- Should scientists be paid or should they pay?
- **Recommendations by (UK) Publishers Association:**
 - Guarantee public access to publicly funded research results shortly after publication
 - Aim at a level playing field in terms of business models in publishing

Publishing Giants

- **Extended quality' rankings of scientific journals**
- **Guarantee perennial access to scholarly journal digital archives**
- **Foster interoperable tools**
- **Promote pro-competitive pricing strategies**
- **Scrutinize future significant mergers**
- **Promote the development of electronic publication**
- **Further investigation**
- **setting up an advisory committee**

Digital/Electronic/Internet Publishing

- **Changes in parts of the research process**
- **Challenges**
- **Problems**
- **Opportunities**
- **Accelerated or speedy publishing?**
- **Faster, cheaper?, publication and publicity**
- **Instant and increased access**
- **Instant reaction**
- **Increased audience**
- **Increases avenues of dissemination and availability**
- **Allows creativity in presentation**
- **More difficult to apply intellectual property rights laws; restriction of access?**

Digital/Electronic/Internet Publishing

- **Authorship rights**
- **Intellectual property protection**
- **Is it safe? Could changes be made?**
- **“Links”?**
- **Will it be available; future form or format? (“Links”?)**
- **“Republication” in other forms**
- **Copyright issues; international consensus; slow process**
- **Need for new patterns for licensing**
- **Maintain core values of print publishing**
- **Costs for those subscribing? (Libraries?)**
- **Future of peer review?**
- **Are open refereeing or chat sites acceptable or equal?**

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Journal of Food Protection: Speed of Publishing

Year/Volume	Percent Printed within ...Months from Submission			Average months
	8	10	12	
2002/65	43	77	91	-
2003/66	29	76	93	-
2004/67	39	79	94	9.0
2005/68	58	81	94	8.2
2006/69	60	90	97	8.1

Journal of Food Protection: Information Overload

Year/Volume	Total Papers	Total Pages
1994/57	194	1,138
1995/58	239	1,440
1996/59	239	1,454
1997/60	270	1,644
1998/61	296	1,728
1999/62	241	1,528
2000/63	274	1,800
2001/64	337	2,148
2002/65	301	2,040
2003/66	350	2,416
2004/67	423	2,908
2005/68	393	2,768
2006/69	430 (122% up)	3,100 (172% up)

Journal of Food Protection: Data Sharing

IAFP would like to draw your attention to the public database ComBase (www.combase.cc) where peer reviewed data are made accessible to the microbiology research community. ComBase is a free web-based resource containing thousands of data sets that describe microbial responses to food environments. Much like public databases of gene sequences, the goal of ComBase is to provide the scientific community with an organized repository of relevant data, permitting rapid data retrieval, analysis and model development, thus reducing unwanted redundancy in research efforts.

If your manuscript contains new kinetic or probabilistic data describing microbial responses to the food environment, please go to the ComBase website (www.combase.cc/datasubmission) to determine if they are appropriate for donation and to receive instructions on how to submit your data. The website also provides you with technical assistance.

The 2006 Federal Research Public Access Act (FRPAA)

FRPAA: Eleven federal agencies funding research require grant recipients to publish their work, online and free, within six months of publication elsewhere

Open Access