

# The future of Information Systems talking about the future of Information Systems

Nadine Bol  
@nadine\_bol

Richard Huskey  
@richardhuskey

Claire M. Segijn  
@cmseg

#ica18, #ica\_is

# 1. What is the Information Systems Division?

Information Systems is concerned with information, language and cognitive systems. Its central goal is promoting the development of general theories of complex systems and quantitative methodologies for communication research variety of domains. This focus brings together people with a wide range of interests and specialties. Member interests include: studies of information flows, the human interface with communication technology, and life in an information society: cognition, including information processing of direct and mediated communication and the construction of cognitive models; artificial intelligence applications in language, logic, and reasoning; modeling and study of interaction systems.

# What is the Information Systems Division?

- Defined by saying what it isn't rather than is:
  - “less interested in the effects of television than in how and why those effects occur”
  - “less interested in whether an interpersonal argument is persuasive than in the mental processes involved in constructing a persuasive message”
- Information processing perspective:
  - “One way of looking at a system is as a system of nodes between which information passes. A node could be a mental process, a person, a department, a company, a country, or a group. It is a place where information is received, sent, altered, changed, or processed”
- Occurs at all levels:
  - Ranging from the intrapersonal (e.g., emotional and cognitive systems) to interpersonal, organizational, and societal systems”

## 2 Information Systems Division: Intrapersonal, Meaning, Attitude, and Social Systems

MICHAEL A. SHAPIRO  
*Cornell University*

MARK A. HAMILTON  
*University of Connecticut*

ANNIE LANG  
*Indiana University*

NOSHIR S. CONTRACTOR  
*University of Illinois*

The Information Systems Division of the International Communication Association is concerned with the systems that make communication work, ranging from the intrapersonal (e.g., emotional and cognitive systems) to interpersonal, organizational, and societal systems. Over the past two decades, the interests of the division have focused increasingly on systems of mental processes in communication, but underlying mechanisms explored in information systems research range from reflexive processing of an advertisement's formal features to concepts of self-organizing systems used to model the behavior of large organizations. This review looks at four major areas of recent interest to scholars in the Information Systems Division. The first two sections examine systems of mental processing of media from reflexive attentional and emotional responses to the conscious interpretations made by viewers. The third section examines the workings of belief systems, particularly as they apply to attitude change. The final section moves away from the individual to the use of systems theory to understand complex social phenomena, including social organizations.

**W**HAT is the Information Systems Division? We get asked that a lot. Some confusion is understandable. Recent papers presented in the division appear to be about almost anything connected to communication: political communication, Internet advertising, television fiction, jury decision making, fund-raising letters, verbal aggressiveness, and more. Methods could be characterized as basically empirical, but otherwise they run the gamut from social observation to pushing reaction-time buttons and measuring heart rate. Experiments are popular, but so are surveys and other methods.

**AUTHORS' NOTE:** In addition to one of the sections, the first author wrote most of the introductory pages of this chapter and coordinated the overall effort. Otherwise, all authors contributed equally, and authorship is in order of the sections of the chapter. Michael A. Shapiro is currently chair of the Information Systems Division of the International Communication Association, Annie Lang is a past chair of the division, Mark A. Hamilton is currently vice chair of the division, and Noshir S. Contractor is a member of the division. Our thanks to Rebecca Polakow for her assistance with the manuscript.

Correspondence: Michael A. Shapiro, Department of Communication, 319 Kennedy Hall, Cornell University, Ithaca, NY 14853; e-mail mas29@cornell.edu  
*Communication Yearbook 24*, pp. 17-49

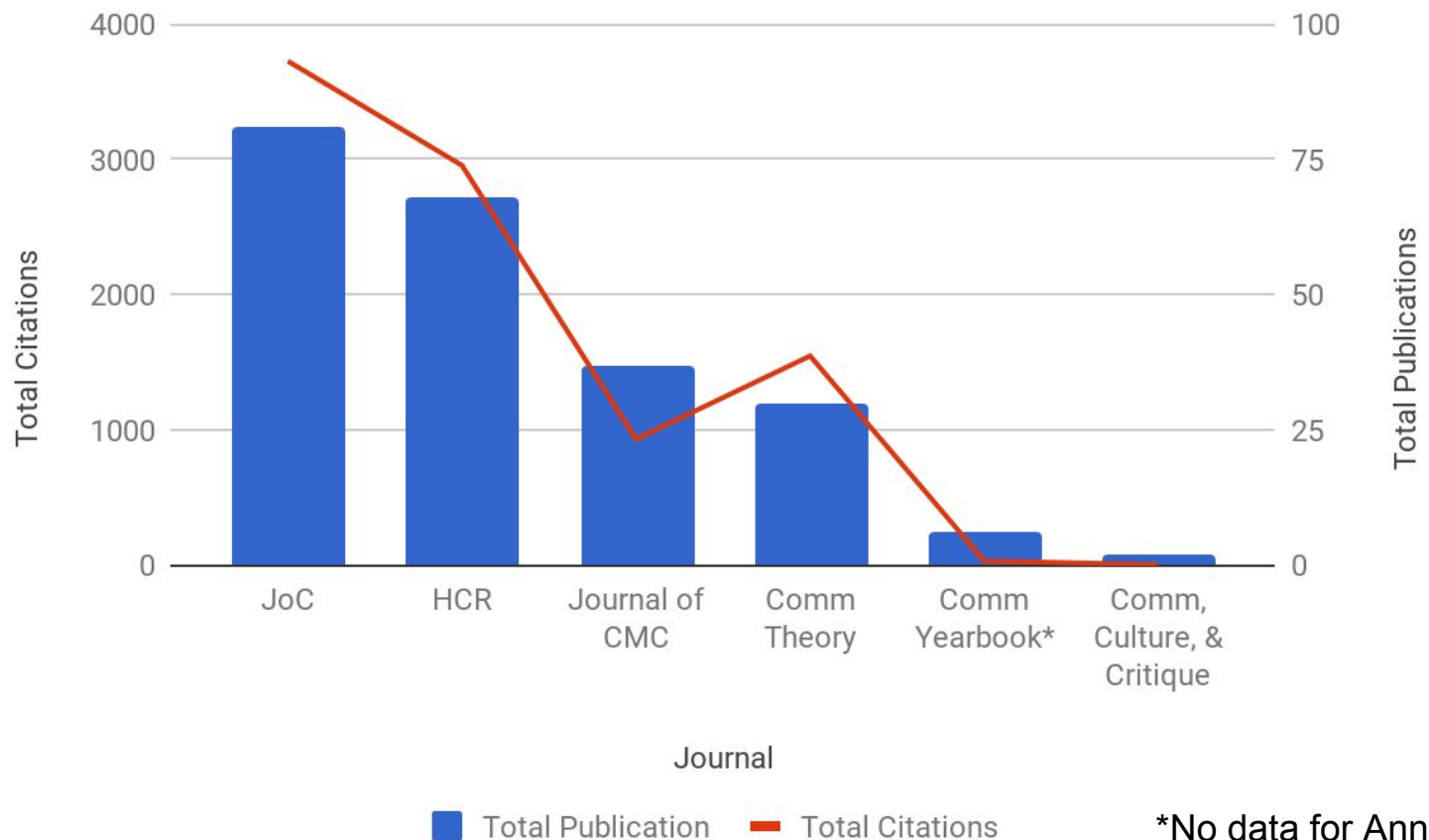
# Information Processing Approach

A philosophical approach to social scientific research

- In Communication:
  - Shapiro, Hamilton, Lang, & Contractor, 2001, *Communication Yearbook*
  - Lang & Ewoldsen, 2010, *Rethinking Communication*
  - Lang, Potter, & Bolls, 2008, *Media Effects: Advances in Theory and Research*
  - Lang, 2013, *Communication Theory*
  - Weber et al., 2015, *Journal of Media Psychology*
  - Monge & Contractor, 2003, *Theories of Communication Networks*
  - etc...
- Broader scientific milieu:
  - Miller & Cohen, 2001, *Annual Review of Neuroscience*
  - Newell, 1973, *Visual Information Processing*
  - Marr, 1982, *Vision*
  - Lazer et al., 2009, *Science*
  - Falk & Bassett, 2017, *Trends in Cognitive Science*
  - Krakauer, et al., 2017, *Neuron*
  - etc...

# In Some Ways, We've Been Very Successful

A search of “Information Processing” in Web of Science™ shows this approach is common across ICA Journals (earliest publication 1968, JoC)\*\*



\*No data for Annals of ICA yet

\*\*Data collected on 05/11/2018

# In Some Ways, We've Been *Very* Successful

A non-systematic search of “Information Processing” on the 2018 ICA program:

- Yielded 243 unique results

Featuring papers and posters across subdisciplines:

- Game Studies
- Communication Science and Biology
- Health Communication
- Communication and Technology
- Computational Methods
- Mobile Communication
- Interpersonal Communication
- Communication History
- Visual Communication
- Environmental Communication
- etc.

# In Some Ways, We've Been *Too* Successful

Emerging Interest Groups at ICA extend Information Processing into new domains

## ICA Computational Methods

“... In particular, computational methods cover computerized tools and algorithms for collecting, processing, analyzing, and visualizing data such as social media data, news sites, and other forms of communication. As such, the group distinguishes from other divisions and interest groups that deal with conceptual issues of social media whereas this group is exclusively oriented to methodological issues....”

## ICA Communication Science & Biology

“... promotes scientific research with relevance for the study of human communication, broadly defined, including biological perspectives such as psychophysiology, cognitive neuroscience, behavioral genetics, animal studies, and evolutionary psychology. Members of the Interest Group value a focus on human communication systems and processes, and strive for rigorous and replicable research....”

# Question

In a field that is organized around either:

- Level (e.g., Interpersonal, Intergroup, Mass, Organizational)

OR

- Topic (e.g., Technology, Sports, Games, Health, Mobile)

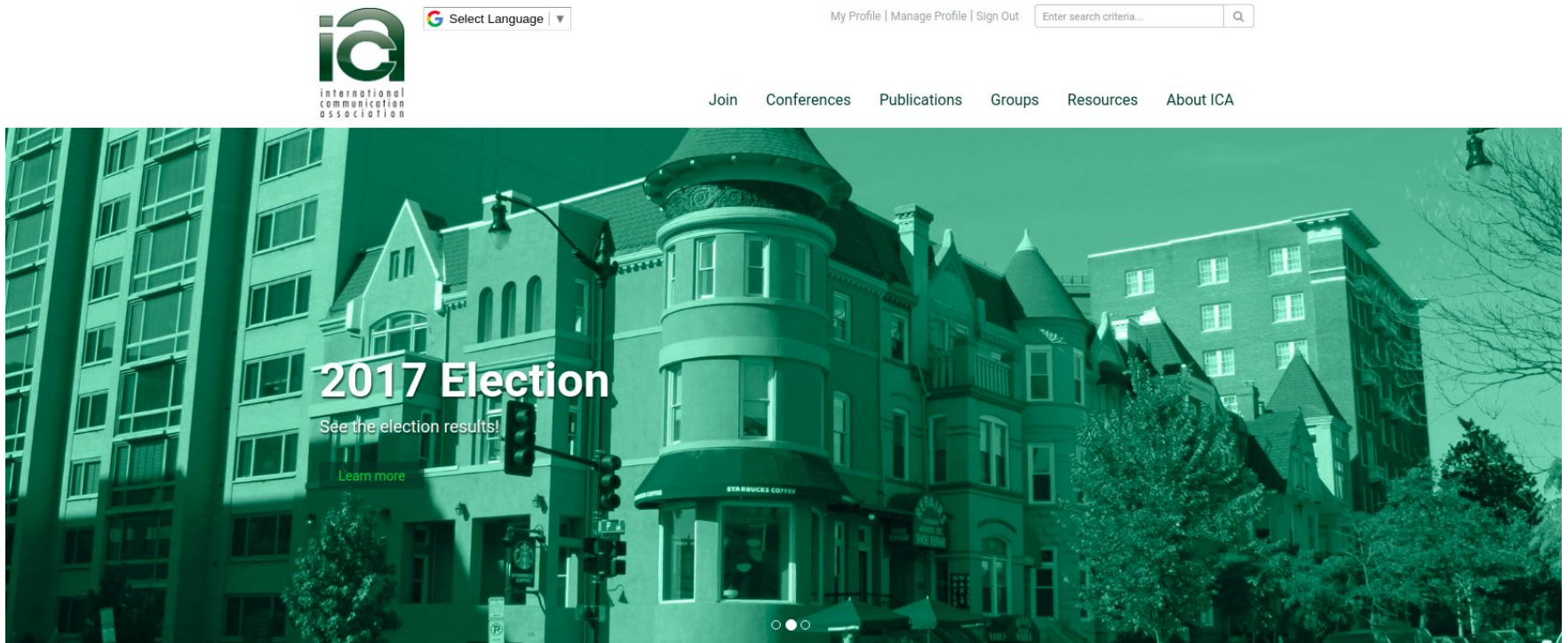
**Is there a home for a division organized around a scientific approach?**



# Two Paths Forward

1. Clear identity on what distinguishes Information Systems from other divisions and interest groups
  - a. This is HARD! If the division is really organized around a scientific approach, then that approach has been (partially) adopted across the discipline
  - b. Reconsider the division's name? (e.g., "Communication Processes and Effects" or "Information Processing and Communication")
2. Consider a merger with philosophically aligned divisions/interest groups (e.g., Computational Methods, Communication Science and Biology)
  - a. Create a shared community for doing communication science from an information processing perspective
  - b. Embrace the overlap between divisions by collaborating

## 2. The role of online community building tools



ICA is an academic association for scholars interested in the study, teaching and application of all aspects of human and mediated communication.

## DIVISIONS: INFORMATION SYSTEMS

Groups » Divisions » Information Systems

 [Group Pages](#)  [Directory & Features](#)  [Options](#)



### **Zheng Joyce Wang** *Chair*

Professor, The Ohio State University  
School of Communication  
3108 Derby Hall, 154 N. Oval  
Columbus OH 43210 USA

[wang.1243@osu.edu](mailto:wang.1243@osu.edu)



### **Narine Yeghyan** *Vice Chair*

Associate Professor, University of  
California-Davis  
Department of Communication  
371 Kerr Hall  
Davis, CA 95616 US



### **Rachel Bailey** *Secretary*

Assistant Professor Washington State  
University

Murrow College of Communication  
P.O. Box 642530  
Pullman WA 99164 USA

[rachel.bailey@wsu.edu](mailto:rachel.bailey@wsu.edu)

Information Systems is concerned with information, language and cognitive systems. Its central goal is promoting the development of general theories of complex systems and quantitative methodologies for communication research variety of domains. This focus brings together people with a wide range of interests and specialties. Member interests include: studies of information flows, the human interface with communication technology, and life in an information society: cognition, including information processing of direct and mediated communication and the construction of cognitive models; artificial intelligence applications in language, logic, and reasoning; modeling and study of interaction systems.

Members have pioneered analytical techniques in areas of network analysis, information theory, structural modeling, interaction analysis, content analysis and linguistic data processing systems. Issues in the philosophy of science, cybernetic epistemology, theory and ethics are regular concerns as well.

### **Call for submissions for the ICA Annual Meeting**

The complete call is here:

<http://www.icaheadq.org/mpage/INFOSYS2018>

The Information Systems Division focuses on original scientific research on how information is generated, processed, and distributed, and how individuals and society are affected by information in various contexts (e.g., health, politics, technologies, education, business, advertising, culture, journalism). All levels of analysis (e.g., intrapersonal, interpersonal, organizational, societal) are welcome.

The Division prides itself on developing a conference environment encouraging dynamic interaction between scholars with data and ideas to share. Most papers accepted for presentation will be programmed into high-density sessions. These sessions will feature extremely brief (3-minute) oral presentations of each study followed by author/audience interaction taking place at research posters created by the authors.





## ICA InfoSys

@ica\_infosys Follows you

This is the official Twitter account of the Information Systems Division of the International Communication Association. We're #1!

📍 Everywhere

📅 Joined July 2016

Tweet to

Message

👤 25 Followers you know



📷 20 Photos and videos



Tweets	Following	Followers	Likes
54	47	82	27

Tweets Tweets & replies Media

ICA InfoSys Retweeted



Comm Sci @ICA\_CSaB · 29 May 2017

Who knows how to party? @ICA\_CSaB @ICAGames @ica\_infosys @ica\_cm know how to party! #ica17



💬 4 ❤️ 12 ✉️



ICA InfoSys @ica\_infosys · 29 May 2017

Replying to @ica\_infosys @supersupermatt @OhioStateComm @mediapark1999

💬 🔄 ❤️ ✉️



ICA InfoSys @ica\_infosys · 29 May 2017

Can't wait to see you all there! Join us, won't you? #ica17 #ica\_is #timetodrink

ICA Game Studies @ICAGames

PARRRRTY! Our reception with #ica\_casb, #ica\_cm, & #ica\_is at 6:30 at Quad




ICA Information Systems Division


Claire



ICA Information Systems Division  
@ICAInfoSys

Startpagina

Info

Foto's

Forum

Berichten

Community

Een pagina maken



Vind ik leuk

Volgend

Delen

...

Status Foto/video

Schrijf iets op deze pagina...

Foto's




ICA Information Systems Division

8 mei 2012 ·

Welcome to InfoSys on Facebook!

Leuk
Opmerking plaatsen
Delen

1



ICA Information Systems Division

25 mei 2012 ·

Great start with our psychophys papers.

Leuk
Opmerking plaatsen
Delen

4


Claire Segijn ICA Information Systems Division

7 mei om 15:26 ·

Nadine Bol, Richard Huskey & I are going to join the panel on the identity and future of the information systems division. Join the conversation in Prague! #ica18

Information Systems Division: Questions of Identity and Future Directions  
Fri, May 25, 11:00 to 12:15, Hilton Old Town, M, Liszt

Session Submission Type: Panel

Abstract

It's been 18 years since the important defining article on Information Systems Division was published in Communication Yearbook (Shapiro, Hamilton, Lang, and Contractor, 2000). The leading senior and junior members of the division will discuss how the identity of the division evolved over the last 20 years. In addition we will consider how our division compares to other divisions of ICA. Do the changes within the division reflect changes in the field in general? What are some evolving trends within the division? What are the opportunities, challenges, and future directions for our division? All members are invited to join our conversation at the round table and continuously after the meeting

Richard Huskey en Nadine Bol

Leuk
Opmerking plaatsen
Delen



Examples from other divisions

# DIVISIONS: COMMUNICATION AND TECHNOLOGY

Groups » Divisions » Communication and Technology

 [Group Pages](#)  [Directory & Features](#)

The Communication and Technology (CAT) Division brings together scholars who research about the roles played by information and communication technologies (ICTs) in the processes of human communication. CAT seeks to enhance theory and methodology pertaining to adoption, usage, message content, communication networks, effects, and policy of ICTs. Areas of research include new media, social media, human-computer interaction, computer-mediated communication, mobile communication, "big data," crowdsourcing, and other technologically mediated social interaction and networking in all contexts (personal, friends, family, groups, organizations, business, healthcare, collective action, politics, government, education, society, culture, intercultural) and at all levels of analyses.

## **Lee Humphreys Chair**

Cornell University  
483 Mann  
Ithaca NY 14853  
Ph. 6072552599  
[lmh13@cornell.edu](mailto:lmh13@cornell.edu)

## **Nicole Ellison Vice Chair**

School of Information  
University of Michigan  
3443 North Quad  
Ann Arbor MI 48109-1285  
Ph. 5172818514  
[enicole@umich.edu](mailto:enicole@umich.edu)

## **Katy Pearce Secretary**

U of Washington  
Seattle WA 98103  
Ph. 2065432660  
[kepearce@uw.edu](mailto:kepearce@uw.edu)

Mass Communication is primarily concerned with the differential impact of messages transmitted by various mass media, including international exchanges through mass media.

The division members promote systematic study of communication presented through the electronic, cinematic and print media. Members participate in developing theory, examination of the processes and effects of mass communication and development and evaluation of policy relevant to mass communication.



**Chair**

Young Mie Kim

University of Wisconsin - Madison

School of Journalism and Mass Communication

[ymkim5@wisc.edu](mailto:ymkim5@wisc.edu)







# Children, Adolescents, and Media Division

- International Communication Association -

[ABOUT](#) • [NEWS](#) • [OFFICERS](#) • [CONFERENCE](#) ▾ • [AWARDS](#) ▾ • [SPOTLIGHT](#) • [MEMORIES](#) • [CONTACT](#) • [EXTERNAL](#)



Welcome to the website of the Children, Adolescents, and Media (CAM) division of International Communication Association (ICA). ICA is an academic association for scholars interested in the study, teaching, and application of all aspects of human and mediated communication. ICA began more than 50 years ago as a small association of U.S. researchers and is now a truly international association with more than 4,500 members in 80 countries across more than 30 divisions and interest groups.

The Children, Adolescents, and Media (CAM) division of ICA focuses on the role of different media in children's and adolescents' lives. CAM became an official division of ICA in 2011 and continues to grow. Today, CAM is comprised of more than 200 scholars from around the world who share an interest in young people and the media. CAM focuses on all media and technologies aimed at and/or used by children and adolescents. Through an interdisciplinary and multi-methodological lens, CAM scholars draw on and contribute to communication theory as well as psychological, sociological, cultural and critical theories.



**IntCommunicationAssn**  
@icahdq

An association whose members are interested in the study, teaching, and application of all aspects of human communication.

Washington, DC  
icahdq.org  
Geregistreerd in april 2009

**Tweets** 4.789 **Volgend** 33 **Volgers** 8.605 **Vind-ik-leuks** 246 **Lijsten** 1

**Tweets** **Tweets en antwoorden** **Media**

IntCommunicationAssn heeft geretweet

**Oxford Journals** @OxfordJournals · 21 apr.  
New special issue from Communication, Culture & Critique explores the relationship between media and the extreme right on a global scale. [bit.ly/ccq-extreme-right](http://bit.ly/ccq-extreme-right) @icahdq

Vertalen uit het Engels

**ICA CAT**  
@ICA\_CAT

Official account for the Communication & Technology Division of the International Communication Association, @katypence & @commfox & @annehirsch at the wheel

Geregistreerd in juni 2010

**Tweets** 8.705 **Volgend** 46 **Volgers** 2.000 **Vind-ik-leuks** 89 **Lijsten** 1

**Tweets** **Tweets en antwoorden** **Media**

**ICA CAT** @ICA\_CAT · 4 u  
Communication and Technology Business Meeting 27-May1700  
Hilton Prague, M, Hilton Grand Ballroom  
[tinyurl.com/yb5dtwk9](http://tinyurl.com/yb5dtwk9) #ica18 #ica\_cat

Vertalen uit het Engels

*Want to get involved?*

**Comm Sci**  
@ICA\_CSaB · Voigt jou

The official Twitter account for the Communication Science & Biology Interest Group of the @icahdq [commscience.org](http://commscience.org), @richardhuskey at the helm

Geregistreerd in januari 2016

**Tweets** 576 **Volgend** 198 **Volgers** 275 **Vind-ik-leuks** 194

**Tweets** **Tweets en antwoorden** **Media**

Comm Sci heeft geretweet

**Frederic R. Hopp** @freddy\_hopp · 8 u  
So excited to use @CartoDB and Hidden Markov Models to predict social unrest in the United States.

Vertalen uit het Engels

# Creating more (online) presence by:

- Summary of division before information of people
- Presenting examples on the website
  - Who is part of the division; identify key scholars
  - What topics are discussed
- Actively engaging on social media
- Creating an attractive website
- Focus on 'recruiting' junior scholars

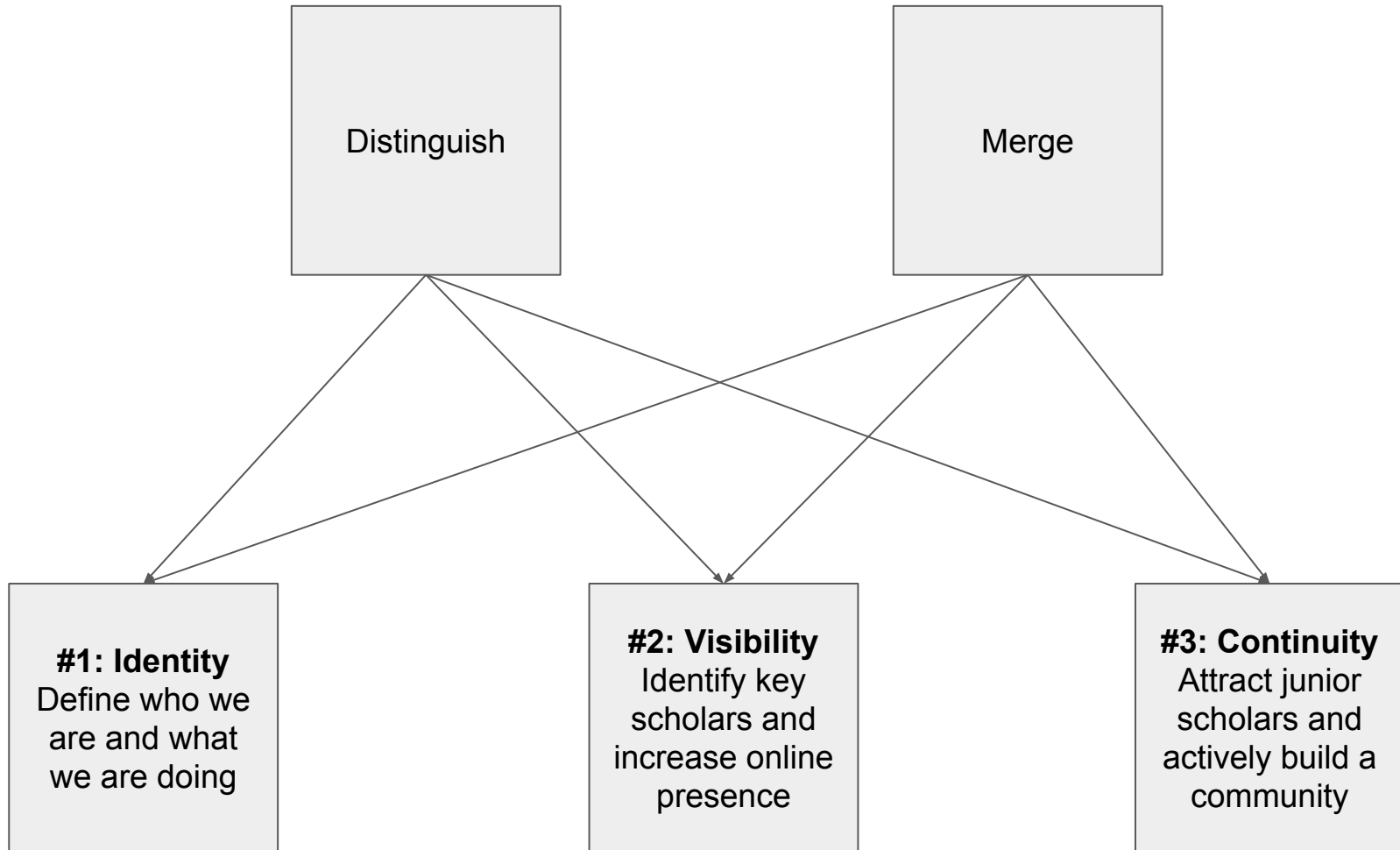
# Communicating visibility & engagement

Attract and engage PhD students and early career scholars

Be creative in proposing new session type formats that enhance community building:

- student colloquium
- “Office hours”
- mentor/mentee program
- ...

### 3. Future of Information Systems



# Thank You!!



Nadine Bol  
Universiteit van Amsterdam  
n.bol@uva.nl



Richard Huskey  
The Ohio State University  
huskey.29@osu.edu



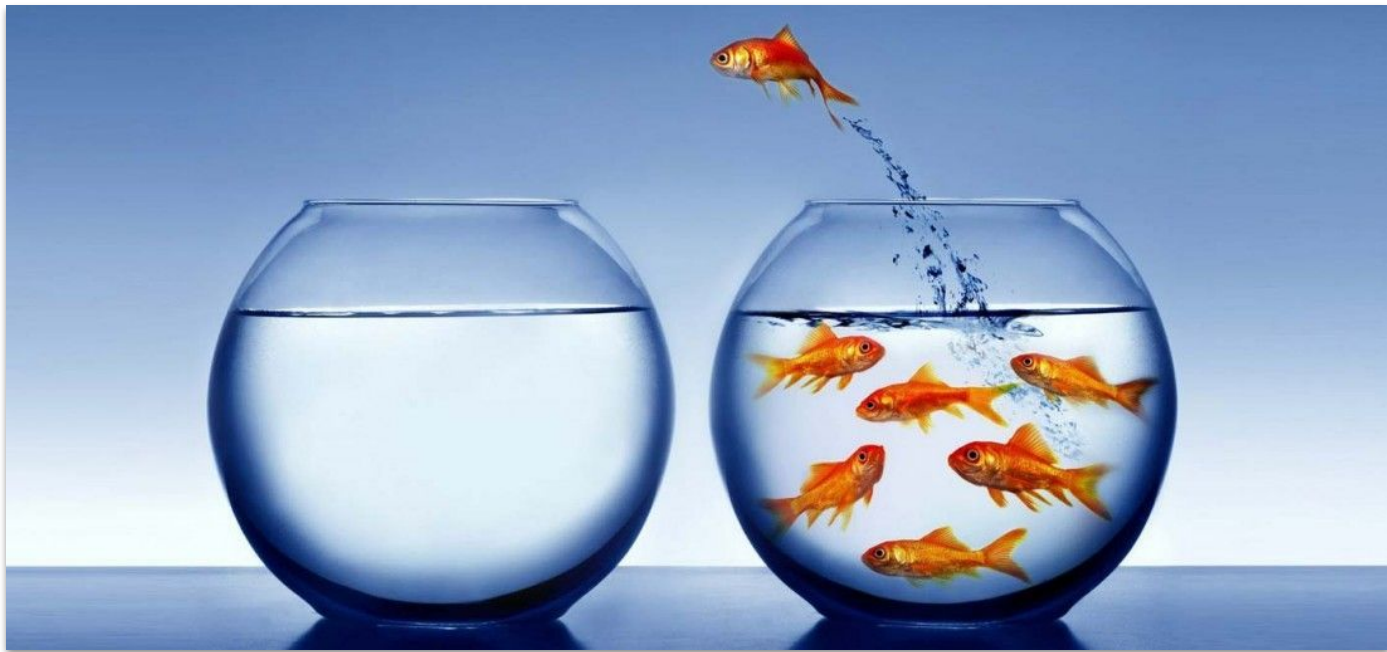
Claire M. Segijn  
University of Minnesota  
segijn@umn.edu



# Agenda

1. What is the Information Systems Division?
2. The role of online community-building tools
3. The future of Information Systems

## 2. Opportunities for distinguishing the division from others



# Communicating a clear identity path #1

“Information systems scholars are not just a collection of nerds focused on abstract methodological issues” (Shapiro, Hamilton, Lang, & Contractor, 2000)

Instead, clearly present conceptual (i.e., information processing, cognitive and affective responses to communication) and methodological focus (i.e., quantitative, rigorous research methods, diversity of methodological approaches)

Reconsider the division’s name? (e.g., “Communication Processes and Effects” or “Information Processing and Communication”)





# Communicating a clear identity path #2

“Information Systems Division members are aggressively explaining the processes at the heart of mass, interpersonal, and organizational communication” (Shapiro, Hamilton, Lang, & Contractor, 2000)

Embrace the overlap between divisions by collaborating or even merging with other divisions

# Why important?

1. Visability
2. Creating a community feeling
3. Creating an identity
4. Continuity: attracting junior scholars