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THE INFORMING SCIENCE INSTITUTE: THE INFORMING SYSTEM OF A TRANSDISCIPLINE

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ABSTRACT

Aim/Purpose	The Informing Science Institute (ISI) is an informing system, designed using informing science principles, for the express purpose of informing researchers who study problems related to informing. This paper describes the ISI as an applied instance of an informing system and analyzes the channels, informers, and clients of the ISI.
Background	This paper begins with a brief overview of the current activity of the ISI, as well as an introduction to informing science philosophy and an explanation of the need for a transdiscipline. The ISI is a non-profit organization that provides several informing channels, including 13 open-access, peer-reviewed journals, as well as conferences, books, and outreach activities.
Methodology	Statistical analyses of the authors, institutions, and countries of origin were conducted for every ISI paper published between 1998 and December of 2019. Additionally, interviews were conducted with 5 current and former Editors-in-Chief of ISI journals.
Contribution	This paper provides a current description and analysis of the ISI informing system's channels, informers, and clients.
Findings	The ISI has published over 4,100 articles by over 4,500 authors from over 600 universities. Statistical analyses of articles published in ISI journals demonstrated that the ISI is characterized in part by robust international participation, with significant participation by authors from countries that have been traditionally under-represented in academic publications. The ISI achieved these outcomes through the use of the philosophical principles and design guidelines for informing science.
Keywords	Informing Science Institute, open access, information systems, transdiscipline, informing systems

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INTRODUCTION

Today, academic research is often conducted through the myopic lens of one discipline or another, using the approaches favored by a specific discipline, and with the results published in journals dedicated to and commonly only read by one discipline. However, there are many complex problems found in the real world that cannot be solved without considering the problem from several viewpoints. The *Informing Science Institute* allows research to be published that considers multiple disciplinary viewpoints and approaches to discussing issues related to informing.

Informing Science is a philosophical research approach that encourages researchers to step out of their departmental research silos, collaborate, and learn from each other when researching systems designed to inform (Cohen, 2009a). The *Informing Science Institute* (ISI) is the organizing body founded to advance informing science research, collaboration, and mentorship. Since its founding in 1998, the ISI has developed a large academic membership and an active publishing platform. For example, since its inception, it has published over 5,700 articles by approximately 4,500 authors from over 600 universities worldwide (See http://informing science.org/journals.php for the listing of all journal articles). The ISI has also published over 50 books and has over 10,000 members worldwide. In 2018, the ISI officially became a nonprofit organization with 501(c)3 status.

In the present paper, the ISI is described as an applied instance of an informing system. Key characteristics of the system are as follows:

- *Interdisciplinary Community of Clients*: Membership of the ISI includes researchers from information science, management information systems, instructional technology, education, communication, biology, cognitive sciences, and other disciplines, all collaborating in studying problems related to informing.
- *Diverse Informing Channels*: The institute provides several communication channels to its clients, including conferences, books, outreach activities, and 14 peer-reviewed scientific research journals that allow researchers to obtain peer review and publishing of their articles at no charge.
- *Global Community of Informers*: The institute's publications boast an international group of contributors, guided by various epistemologies and facilitated by its conferences' international flavor.

We begin by considering the definition of an informing system. Then we describe how the elements of the ISI fit into this definition. The ISI clients are described, followed by a description of the informing channels the ISI employs, such as journals, books, and conferences. We conclude by examining some of the challenges and opportunities that face the ISI in the future.

THE DEFINITION OF AN INFORMING SYSTEM

Cohen (2009a) specifies that the informing science framework has three components that must be present in an Informing System: the informing environment, the delivery system, and the task-completion system:

- **Informing Environment.** The informing environment is analogous to the sender and encoder in the Shannon and Weaver (1949) communication model. Unlike the communication model, the informing science framework considers the informing environment at three levels of abstraction. These three levels are (a) the instance (using a system that is in place), (b) the creation of new instances of informing (to the organization or any of its components), and, at the highest level, (c) the creation of new designs for informing.
- **Delivery System.** The delivery system refers to the use of information technologies (computing, communications, and so on) that support the informing environment's implementation. Information technologies are not limited to computing. Data communication includes

video and voice, and even personal contact when it is augmented through planned communication.

- **Task-Completion System.** The driving force behind informing environments and delivery systems is that a task needs to be accomplished. The task defines what information is needed. This task completion component typically involves a person who has a job at hand. It corresponds to the decoder – the receiver of components in the communications model.
  - The task completion system is the sole component that defines the difference among various academic disciplines that comprise informing science (Cohen, 1999/2009b, p. 15). While all of these disciplines need to inform clients, they are not disciplines of informing science. Rather, they are client disciplines of informing science.

Figure 1 shows Cohen's (2009a) representation of an informing system. These components may map directly to a sender/informer in the simplest informing systems, a single channel, and a client. In real-world settings, however, such systems are rarely so straightforward. For example, participants may play multiple roles within the system (e.g., informer and client). Multiple multidirectional channels may be present. Informing may involve multiple clients and/or tasks. As Gill discusses (2009b), the channel and the content of the messages can affect the informing system's usefulness. Consequently, the system's usefulness determines whether or not senders and receivers of messages will actually use the system. We now look at some of the informing system's key elements that have developed around the ISI.

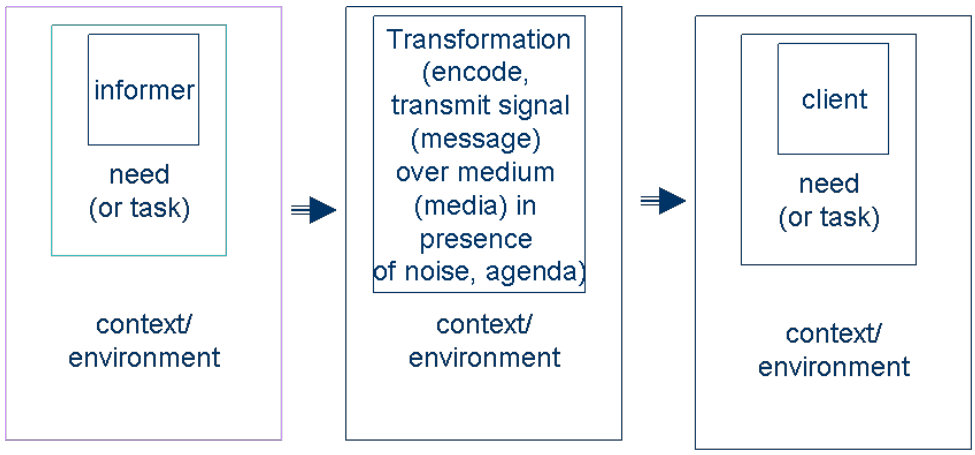

Figure 1 from Cohen (2009a) illustrates the framework of an informing system

THE ISI AS AN INFORMING SYSTEM

Gill and Bhattacherjee (2009b) identify four characteristics that should be present for the informing science approach to be considered the appropriate approach:

- *The client has an unaddressed set of problems* (p. 41)
- *Serving the client provides access to resources* (p. 41)
- *The members of the discipline have the expertise to address the client's unaddressed problem* (p. 42)
- *One or more resonant communications channels exist or can be created* (p. 42)

If we consider the Informing Science Institute as an instance of an informing system, using the framework of informing science as a model, we see that:

- The ISI is a sender of messages, disseminating published research to the consumers of its research.

- The ISI journal editors, who mentor the potential authors, are also senders of messages to researchers who wish the ISI to publish their research.
- The ISI defines and refines its informing environment, primarily through the founder and fellows, who guide activities and publications.
- The ISI is maintained by several channels, including its conference, books, journals, and outreach activities.
- Clients of the ISI include researchers, consumers of research, and conference attendees.

Refer to Figure 2 for a diagram of the ISI as an informing system.

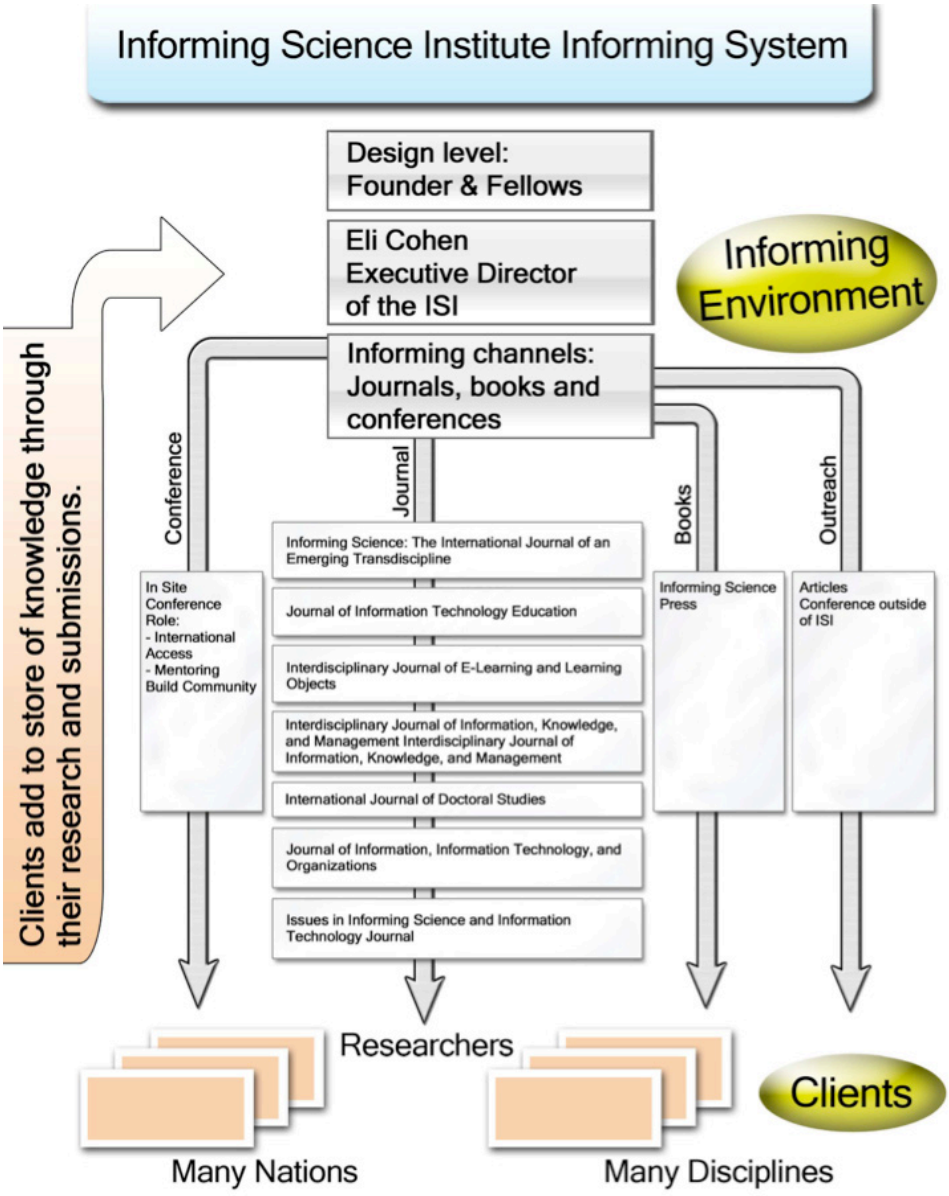

Figure 2. Informing Science Institute as an Informing System

THE ISI CLIENTS

The ISI targets a set of diverse clients in two important respects: (1) they come from many disciplines, and (2) they come from many nations. To serve these clients effectively, the research being

communicated must meet three criteria: *rigor*, *relevance*, and *resonance*. The ISI attempts to control its communications rigor by relying on the peer review model used by other academic journals. Before research is published, it is vetted and edited by experienced researchers familiar with the subject being researched. Reviewers of manuscripts include those who have successfully been published in journals and hopefully have some familiarity with the author's topic or methodology, or interest. Authors are provided with constructive feedback through this developmental review process (Informing Science Institute, 2011).

For relevance, all the ISI members have a common interest in studying problems related to informing. All of the research published and discussed is expected to have some theme related to the problems of informing. Individual instances of research might take an instructional technology approach, look at a problem in business information systems, or be concerned with communications or other philosophical approaches. But, the common thread of relevance to the members of the ISI is that all the research being considered has some relation or connection back to problems and areas related to informing.

The third criterion, resonance, is of particular importance when serving a diverse clientele such as the ISI membership. Gill (2009a, p. 239) describes resonance as "the ability of the research message to move through available channels to the client and, subsequently, to impact that client's mental models." To achieve such resonance within the informing system presented in Figure 2, the ISI paid particular attention to these broadly defined needs:

- The need to get their research published,
- The need to overcome barriers to readers accessing their research once published,
- The need to be mentored by more experienced researchers,
- The need to be exposed to methods beyond their own disciplinary approaches,
- The human need to belong to a community with common goals and interests and all that implies.

Key features of the system design intended to meet these needs are now described.

Open Access

The ISI does not charge anyone to access electronic copies of its full-text articles nor does it charge to submit a paper. For accepted papers, ISI members pay no publication fee, and non-members can join to avoid paying an article publication charge (APC) or pay a small APC to cover the cost of publication. The institute's goal is the accumulation and dissemination of quality scientific research to as wide an audience as possible (Gill & Cohen, 2009). With many of its clients coming from poorer nations and universities without large research budget, an open access model serves to remove financial barriers that would prevent researchers from publishing their research or prevent potential consumers from accessing it. This open publishing approach is in stark contrast to the commercial traditional publishing approach followed by many other academic journals.

Herb (2010) lists the following as the commonly perceived advantages of open access academic journals:

- Open access accelerates scientific communication.
- Open access removes financial barriers to sharing knowledge.
- Open access reduces social barriers to accessing knowledge.
- Open access facilitates participation from all levels.
- Open access reduces geographic, international, and economic barriers.

Open access journals tend to help "poorer" countries access scientific literature that might otherwise be beyond their reach. "Free online availability 'is not a huge driver of science in the first world, but

it shapes parts of science in the rest of world,' Evans told *The Scientist*" (Dolgin, 2009). Thus, the open access policy of ISI is closely tied to its international clientele, now discussed.

INTERNATIONAL

The ISI makes a particular effort to support a global clientele. As illustrated in Figure 3, its contributors come from both well-established research centers, such as North America, Australia, and Western Europe, and also from regions that are typically underrepresented, such as Africa, the Middle East, and Eastern Europe.

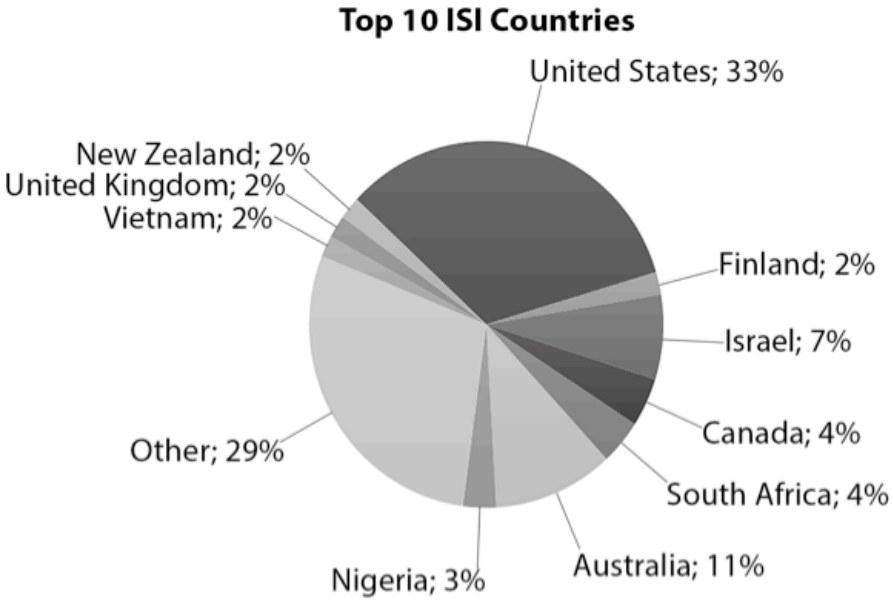

Figure 3. The Percentage of Articles with Authors Representing Various Countries in all ISI Journals from 1998 through 2019

MULTIDISCIPLINARY COMMUNITY

A driver of diversity for ISI publications is the transdiscipline approach. Cohen (2009a) states that the informing science design framework is transdisciplinary and is a common design and analysis framework for any system whose purpose is to inform. "The informing science as a discipline emerged as a result of the observation that many disciplines like education, library science, information systems were studying the movement of information between senders and receivers in ways that were far more similar than they were different" (Gill & Bhattacherjee, 2009b p. 22). Cohen (2009a) asserts that transdisciplines such as statistics and informing science may be applied to enhance research activities in many disciplines. By freeing the research process from discipline-specific constraints, researchers can focus on producing quality research rather than on the academic-political limitations of the research they produce.

The problem often encountered with multidisciplinary research is the absence of outlets specializing in such research in an environment dominated by disciplinary researchers. Academic researchers who would like to advance their careers in the current tenure-granting system have every reason to publish in certain favored journals, cite those articles, and hope that other authors who publish in the favored journals cite them as well:

- Researchers are motivated and rewarded based on recognition in the research community for published work (Hagstrom, 1965; Meadows, 1974).

- Promotion, tenure, grants, salary, and academic positions are all determined by the citation driven recognition from other researchers (Cohen, 2009a; Cole & Cole, 1973; Zuckerman & Merton, 1971).
- Citations have more influence on academic salary than how much research an academic does or their experience (Hamermesh et al., 1982).

In the absence of a multidisciplinary community, the extrinsic rewards for conducting such research are likely to be very limited. Thus, building such a community around informing has been a central goal of ISI. The *Informing Science and IT Education* (InSITE) conferences play a particularly important role in building such a community. An important feature of these conferences is the associated study missions designed to build trust relationships that benefit long-distance research collaboration.

Another key aspect of the ISI community is the presence of highly active members and institutions. Such activity, as illustrated in Table 1, demonstrates a strong commitment to informing science research. Notably, five of the ten most published authors in the field have taken on leadership roles in the ISI, agreeing to serve as Fellows of the ISI (Gill, Buzzetto-Hollywood, Koohang, Christozov, and Saadé).

Table 1. Most Frequently Published Authors and Institutions across all ISI Journals from1998 through 2019

Published Authors	Country	Number
Grandon Gill	USA	84
Raafat Saadé	CAN	59
Azad Ali	USA	40
Nicole Buzzetto-Hollywood	USA	37
Nitza Geri	ISR	30
Samuel Sambasivam	USA	29
Dimitar Christozov	BGR	28
Iwona Miliszewska	AUS	27
Alex Koohang	USA	27
Grace Tan	AUS	27

Most Published Institutions	Country	Number
University of South Florida	USA	225
Concordia University	CAN	136
Victoria University	AUS	126
University of Cape Town	ZAF	111
The Open University of Israel	ISR	89
RMIT University	AUS	69
University of Maryland, Eastern Shore	USA	64
University of Wollongong	AUS	62
RMIT University	VNM	61
Robert Morris University	USA	56

RESEARCHERS MENTORING OTHER RESEARCHERS

The ISI is dedicated to providing mentoring services to other researchers. The combination of open access and the various channels facilitates mentoring communications being delivered to the ISI clients.

The Founder of the ISI emphasized mentoring as one of the two guiding principles of the Institute, "As an organization, it is guided by two principles: setting knowledge free through making all of its publication available free of charge online and embracing mentorship, that is, colleagues helping colleagues learn how to improve" (Gill & Cohen, 2009, p. 2).

Mentoring is, in many ways, another informing process where the Founder and Fellows mentor the Editors-In-Chief of the journals, the Editors-In-Chiefs mentor the Editors, the Editors, and reviewers mentor the authors and the authors inform their readership and everyone else with their research.

Dr. Gill, former the former Editor-In-Chief of the journal *Informing Science* (InformSciJ), had the following comments on the importance of mentoring in his Open Letter (Gill, 2009c):

- "What goes on behind the scenes – during the mentoring and encouragement that occurs during the review process, during the conference sessions where we describe how to write

for the journal, throughout editor interactions with potential authors – are equally important parts of knowledge sharing." (p. v)

- "I view my main role at InformSciJ as one of being a mentor to the editors; I also anticipate that they will also serve as mentors to me regularly." (p. ix)
- One of the Editors three primary duties is: "Mentoring the authors to become even better at writing their research papers." (p. ix)

Mentoring is a type of informing--specifically, active informing--where the purpose of the informing is to direct the receivers to take a specific action: to make changes to their research publications so that they are more publishable, more readable, and generally better. In fact, the sender and the receiver both learn from this process. These bi-directional informing processes improve the products of the informing system and are processes that improve the informing system itself.

THE ISI CHANNELS

As Cohen (2009a) pointed out, research needs to be published to reach the largest number of consumers, and academic researchers are generally incentivized for research published in journals. Therefore, if an informing system is to have academic researchers as clients, it is likely to offer a journal as a channel to communicate with resonance to that group. However, Cohen (2009a) also pointed out that face-to-face and interpersonal interactions facilitate building trust and sense of the community of clients the informing system serves. Accordingly, the institute offers conferences as another channel to build trust and facilitate concepts being transferred between members from different disciplines. Whereas its journals focus on publishing articles that relate to each journal's specific mission, the institute also publishes books that compile articles from across the journals related to specific themes that may be covered by several journals within the ISI. Again, books are another way of packaging information that is rigorous, relevant, and resonant to the reader/researcher.

JOURNALS OF THE ISI

As of April of 2020, the Informing Science Institute (ISI) publishes 13 academic journals. 10 of these journals are produced solely by the ISI, and three other journals are published in collaboration with other institutions. Refer to Table 2 for the list of journals currently published by the ISI, the year each journal was founded, and the number of articles, authors, and institutions published in each journal by December of 2019.

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Informing Science: The International Journal of an Emerging Transdiscipline (InformSciJ) (2019) seeks to provide an understanding of the complexities of informing clientele regarding an array of fields that includes information systems, library science, all forms of journalism, and education. These fields, which have been developed and researched independently, are evolving to form a new transdiscipline, informing science. This journal publishes articles that provide insights into informing clients. Authors may use knowledge from various fields, including, but not limited to, engineering, computer science, education, psychology, business, and anthropology.

Key Statistics. InformSciJ was founded in 1998. From its inception through 2019 articles, it published 596 articles, submitted by 447 authors from 153 institutions.

Key statistics relating to authorship and international contributions are presented in Table 3 and Figure 4 (see Appendix for explanation of data collection for Tables 3-10 and Figures 4-11).

Table 2. Current Journals of the Informing Science Institute (2019)

Title	Specialization/ Mission	Authors through 2019	Articles through 2019	Institutions through 2019	Year Founded
Informing Science: The International Journal of an Emerging Transdiscipline	The flagship journal of the ISI, focusing on theory and practice of informing	447	596	153	1998
Journal of Information Technology Education: Research	Publishes research on the use of IT in education	845	978	328	2002
Journal of Information Technology Education: Innovations in Practice	Considers innovative practices in IT use in education	324	377	167	2002
Journal for the Study of Postsecondary and Tertiary Education	Considers issues in the advancement of higher and postsecondary education	115	141	76	2016
Interdisciplinary Journal of E-Skills and Lifelong Learning	Considers instructional technology issues of informing	433	619	162	2005
Interdisciplinary Journal of Information, Knowledge, and Management	Considers information and technology in organizations	402	479	212	2006
International Journal of Doctoral Studies	Considers issues with informing doctoral students	510	610	256	2006
Issues in Informing Science and Information Technology Journal	Covers IT in all other disciplines	821	1294	250	2004

Table 3. Most Frequently Published Authors and Institutions: Publishing in Informing Science from 1998 through 2019

Most Published Authors	Country	Number
Grandon Gill	USA	24
Victor Prybutok	USA	11
Eli Cohen	USA	7
Zbigniew Gackowski	USA	6
Sherry Ryan	USA	6
Daniel Peak	USA	5
Petter Gottschalk	NOR	5
Dimitar Christozov	BGR	4
Peter Bednar	GBR	4
Ulrich Schmitt	BWA	4

Most Published Institutions	Country	Number
University of South Florida	USA	37
University of North Texas	USA	36
Informing Science Institute	USA	10
University of Cape Town	ZAF	9
George Washington University	USA	7
Idaho State University	USA	7
INCAE Business School	CRI	7
California State University Stanislaus	USA	6
DePaul University	USA	5
University of Wollongong	AUS	5

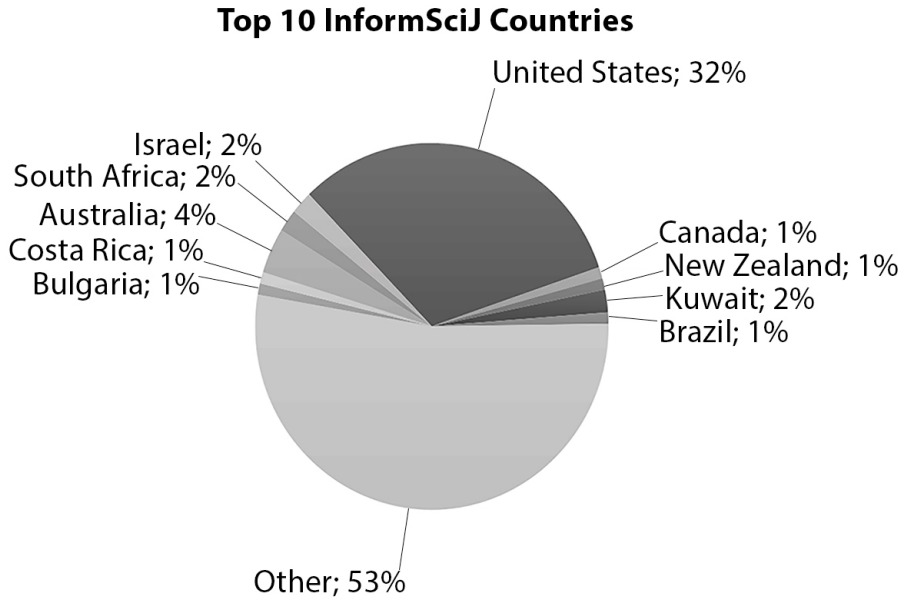

Figure 4. The Percentage of Articles by Authors Representing Various Countries in *Informing Science: The International Journal of an Emerging Transdiscipline* from 1998 through 2019

Interview with Eli Cohen, Editor-In-Chief of InformSciJ. The following is an extract of an interview conducted via email in May of 2020 with Eli Cohen, Editor-in-Chief of InformSciJ. Cohen is also Editor-in-Chief of the ISI journal *Issues in Informing Science and Information Technology* (IISIT). In addition to his responses to interview questions, Cohen provided a list of publication criteria for the journal. The list is provided at the end of this interview.

Can you tell me a little about the history of the journal?

The journal was initiated in 1997 to advance several innovations:

1. Finding a journal that published any transdisciplinary (and even cross-disciplinary) research was a challenge. Only a decade after we started did a small number of journals come into existence.
2. The transdiscipline of informing science needed an outlet for researchers engaging in this new field of study to publish.
3. The journal became one of the first to publish open access. The typical model, both for commercial publishers and even for associations, was the paid subscription model. This paid model limited the impact of papers to researchers whose institutions paid for subscriptions.
4. Papers were published as accepted instead of following the typical practice by other journals to hold papers until the next issue was printed.
5. We developed the model of providing authors of submissions with a development letter, whether or not the paper would be advanced toward publication, to replace the arcane. Our goal was for the editor to serve the author as a coach, not merely a judge or referee. The editor serves as a guide more than as a gatekeeper.
6. These changes to the status quo of publishing required us also to mentor our reviewers and editors. We actively monitor and mentor reviewers and editors, provide them with feedback on their review and development letters.

What are your main aspirations for the journal?

Our main aspiration is to develop the transdiscipline of informing science.

What readership is the journal serving?

We are gratified that the academic audience that reads the journal comes from various fields, including philosophy, computer science, business, library science, medicine, and the social sciences.

What areas of research within informing science do you feel to be the most promising?

Not applicable

Why are certain areas of informing science poorly understood or under-recognized?

Only select researchers understand the field, and this is why the journal is so important. We reject most submissions because the topic of the paper is not informing science.

Where does this journal sit within the informing science transdiscipline?

This is the flagship journal of the transdiscipline.

Are there any disadvantages to being a journal within the informing science transdiscipline?

The institute requires its reviewers, editors, and editors-in-chief a level of commitment to mentoring unheard of by other journals.

Who are the practitioners served by your journal?

After 20 years, we still need universities to adopt transdisciplinary studies. A few universities do. I know of such programs in Russia, Bulgaria, and the US.

How do you try to balance the needs of students, researchers, and practitioners?

We focus solely on the needs of researchers.

What characteristics in a submission are your reviewers looking for?

I show these in the appendix. [See the end of interview]

How do you foresee your journal evolving in the future?

The journal has already evolved to include the study of transdisciplinarity.

Does your journal tend to favor positivism versus interpretivism, or quantitative study versus qualitative? Why?

The journal is agnostic and welcomes all submissions that advance our understanding of best practices in informing. Our goal is to publish papers that

(a) contribute significantly to the content area covered by the journal,

(b) communicate with clarity and conciseness, and

(c) conform to the journal's style guidelines.

How did you become interested in informing science?

My broad education and experiences led me to understand first that various fields were all studying informing, but each was blind to the relevant work done in other fields.

What do you like the most and the least about being an Editor?

I like best helping authors to improve their thinking and their research. I like least the high degree of commitment it requires.

Can you give me one example where an article published in your journal may have made a measurable impact in the broader world?

One example is the paper "Promoting Relevance in IS Research: An informing System for Design Science Research," by Kuechler and Vaishnavi. It improved research in design science.

[End of Interview]

The ISI CHECKLIST OF REVIEW CRITERIA* [as provided by Eli Cohen as an appendix to his May 2020 interview. See the end of the checklist for footnote provided by Cohen.]

Problem Statement, Conceptual Framework, and Research Question

- The introduction builds a logical case and context for the problem statement.
- The problem statement is clear and well-articulated.
- The conceptual framework is explicit and justified.
- The research question (research hypothesis where applicable) is clear, concise, and complete.
- The variables being investigated are clearly identified and presented.

Reference to the Literature and Documentation

- The literature review is up-to-date.
- The number of references is appropriate, and their selection is judicious.
- The review of the literature is well integrated.
- The references are mainly primary sources.
- The ideas are acknowledged appropriately (scholarly attribution) and accurately.
- The literature is analyzed and critically appraised.

Relevance

- The study is relevant to the mission of the journal or its audience.
- The study addresses important problems or issues; the study is worth doing.
- The study adds to the literature already available on the subject.
- The study has generalizability because of the selection of subjects, setting, and educational intervention or materials.

Research Design

- The research design is defined and clearly described, and is sufficiently detailed to permit the study to replicated.
- The design is appropriate (optimal) for the research question.
- The design has internal validity, potential confounding variables or biases are addressed.
- The design has external validity, including subjects, settings, and conditions.
- The design allows for unexpected outcomes or events to occur.
- The design and conduct of the study are plausible.

Instrumentation, Data Collection, and Quality Control

- The development and content of the instrument are sufficiently described or referenced and are sufficiently detailed to permit the study to be replicated.

- The instrument's measurement is appropriate given the study's variables; the scoring method is clearly defined.
- The psychometric properties and procedures are clearly presented and appropriate.
- The data set is sufficiently described or referenced.
- Observers or raters were sufficiently trained.
- Data quality control is described and adequate.

Population and Sample

- The population is defined clearly, both for subjects (participants) and stimulus (intervention), and is sufficiently detailed to permit the study to be replicated.
- The sampling procedures are sufficiently described.
- Subject samples are appropriate to the research question.
- Stimulus samples are appropriate to the research questions.
- Selection bias is addressed.

Data Analysis and Statistics

- Data analysis procedures are sufficiently described and are sufficiently detailed to permit the study to be replicated.
- Data analysis procedures conform to the research design; hypotheses, models, or theory drives the data analyses.
- The assumptions underlying the use of statistics are fulfilled by the data, such as measurement properties of the data and normality of distributions.
- Statistical tests are appropriate (optimal).
- If statistical analysis involves multiple tests or comparisons, proper adjustment of significance level for chance outcomes was applied.
- Power issues are considered in statistical studies with small sample sizes.
- In qualitative research that relies on words instead of numbers, basic requirements of data reliability, validity, trustworthiness, and absence of bias were fulfilled.

Reporting of Statistical Analyses

- The assumptions underlying the use of statistics are considered, given the data collected.
- The statistics are reported correctly and appropriately.
- The number of analyses is appropriate.
- Measures of functional significance, such as effect size or proportion of variance accounted for, accompany hypothesis-testing analysis.

Presentation of Results

- Results are organized in a way that is easy to understand.
- Results are presented effectively; the results are contextualized.
- The results are complete.
- The amount of data presented is sufficient and appropriate.
- Tables, graphs, or figures are used judiciously and agree with the text.

Discussion and Conclusion: Interpretation

- The conclusions are clearly stated; key points stand out.
- The conclusions follow from the design, methods, and results; justification of conclusions is well articulated.
- Interpretations of the results are appropriate; the conclusions are accurate (not misleading).

- The study limitations are discussed.
- Alternative interpretations for the findings are considered.
- Statistical differences are distinguished from meaningful differences.
- Personal perspectives or values related to interpretations are discussed.
- Practical significance or theoretical implications are discussed; guidance for future studies is offered.

Title, Authors and Abstract

- The title is clear and informative.
- The title is representative of the content and breadth of the study (not misleading).
- The title captures the importance of the study and the attention of the reader.
- The number of authors appears to be appropriate given the study.
- The abstract is complete (thorough); essential details are presented.
- The results in the abstract are presented in sufficient and specific detail.
- The conclusions in the abstract are justified by the information in the abstract and the text.
- There are no inconsistencies in detail between the abstract and the text.
- All of the information in the abstract is present in the text.
- The abstract overall is congruent with the text; the abstract gives the same impression as the text.

Presentation and Documentation

- The text is well written and easy to follow.
- The vocabulary is appropriate.
- The content is complete and fully congruent.
- The manuscript is well organized.
- The data reported are accurate (e.g., numbers add up) and appropriate; tables and figures are used effectively and agree with the text
- Reference citations are complete and accurate.

Scientific Conduct

- There are no instances of plagiarism.
- Ideas and materials of others are correctly attributed.
- Prior publication by the author(s) of substantial portions of the data or study is appropriately acknowledged.
- There is no apparent conflict of interest.
- There is an explicit statement of approval by an institutional review board (IRB) for studies directly involving human subjects or data about them.

*Adapted from Academic Medicine, journal of the Association of American Medical Colleges. This "Checklist of Review Criteria" from the Task Force of Academic Medicine and the GEA-RIME Committee was originally published as Appendix 1 in Vol. 76, No. 9 (September 2001) Academic Medicine.

Journal of Information Technology Education: Research - http://JITEResearch.org & Journal of Information Technology: Innovations in Practice - http://JITEIIP.org

The *Journal of Information Technology: Research* (JITE: Research) (2019) publishes scholarly articles on the use of information technology in educational environments that promote learning, facilitate teaching, and support administrators. The journal publishes conceptual, theoretical, and empirical papers that focus on information technology while remaining grounded in sound pedagogical principles. At its inception in 2002, the journal was simply titled *Journal of Information Technology Education.* However, in

2008 the journal was renamed *Journal of Information Technology Education: Research* to allow for the creation of a second, distinct journal titled *Journal of Information Technology: Innovations in Practice* (JITE: IIP). JITE: Research continues to publish research articles whose focus is on information technology in education, while JITE: IIP publishes articles whose focus is on the practical applications of technology in educational settings. The establishment of two distinct journals enabled each journal to define its mission for readers more precisely while enabling reviewers to narrow their criteria for acceptance of submissions. The JITE: IIP aims to inform readers of cutting-edge developments in the use of technology in education by presenting the latest empirically supported research in the field.

Key Statistics: JITE: Research. JITE was founded in 2002 and changed its name to JITE: Research in 2008. From its inception through 2019, it published 978 articles, submitted by 845 authors from 328 institutions.

Key statistics relating to authorship and international contributions are presented in Table 4 and Figure 5 (see Appendix for explanation of data collection for Tables 3-10 and Figures 4-11).

Table 4. Most Frequently Published Authors and Institutions: Publishing in the Journal of Information Technology Education: Research from 2002 through 2019

Most Published Authors	Country	Number
Lynn Jeffrey	NZL	7
Raafat Saadé	CAN	5
Anne Venables	AUS	4
Orit Avidov Ungar	ISR	4
Grandon Gill	USA	4
Tian Luo	USA	4
Han Reichgelt	USA	4
Elsje Scott	ZAF	4
Matti Tedre	SWE	4
Marilyn Ford	AUS	4

Most Published Institutions	Country	Number
Victoria University	AUS	18
Concordia University	CAN	12
Massey University	NZL	11
Old Dominion University	USA	9
University of Cape Town	ZAF	9
East Carolina University	USA	7
Cardiff University	GBR	6
University of Sydney	AUS	6
University of the West of Scotland	GBR	6
Zayed University	ARE	6

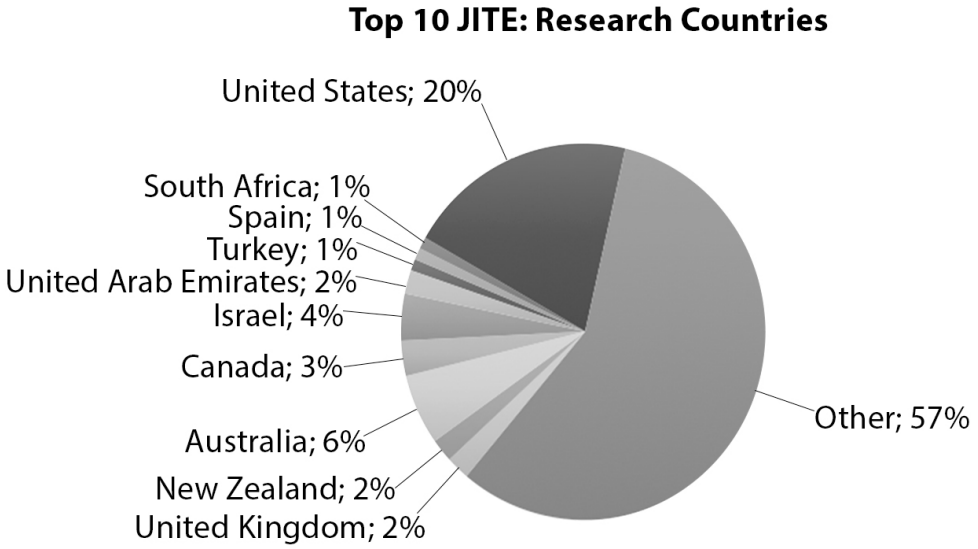

Figure 5. The Percentage of Articles by Authors Representing Various Countries in the Journal of Information Technology: Education from 2002 Through 2019

Key Statistics: JITE: IIP. JITE: IIP was founded in 2008. From its inception through 2019, it published 377 articles submitted by 324 authors from 167 institutions.

Key statistics relating to authorship and international contributions are presented in Table 5 and Figure 6 (see Appendix for explanation of data collection for Tables 3-10 and Figures 4-11).

Table 5. Most Frequently Published Authors and Institutions: Publishing in the Journal of Information Technology Education: Innovations in Practice from 2008 through 2019

Most Published Authors	Country	Number
Grace Tan	AUS	7
Marina Bers	USA	7
Amanda Sullivan	USA	7
Anne Venables	AUS	6
Christopher Cheong	AUS	5
Lynn Jeffrey	NZL	3
Iwona Miliszewska	AUS	3
Minh Huynh	USA	3
France Cheong	USA	2
Jason Sharp	USA	2

Most Published Institutions	Country	Number
Tufts University	USA	18
Victoria University	AUS	14
East Carolina University	USA	8
RMIT University	AUS	7
Southeastern Louisiana University	USA	6
Tshwane University of Technology	ZAF	6
Concordia University	CAN	6
Boston College	USA	5
Universitat Jaume I	ESP	5
University of Turku	FIN	5

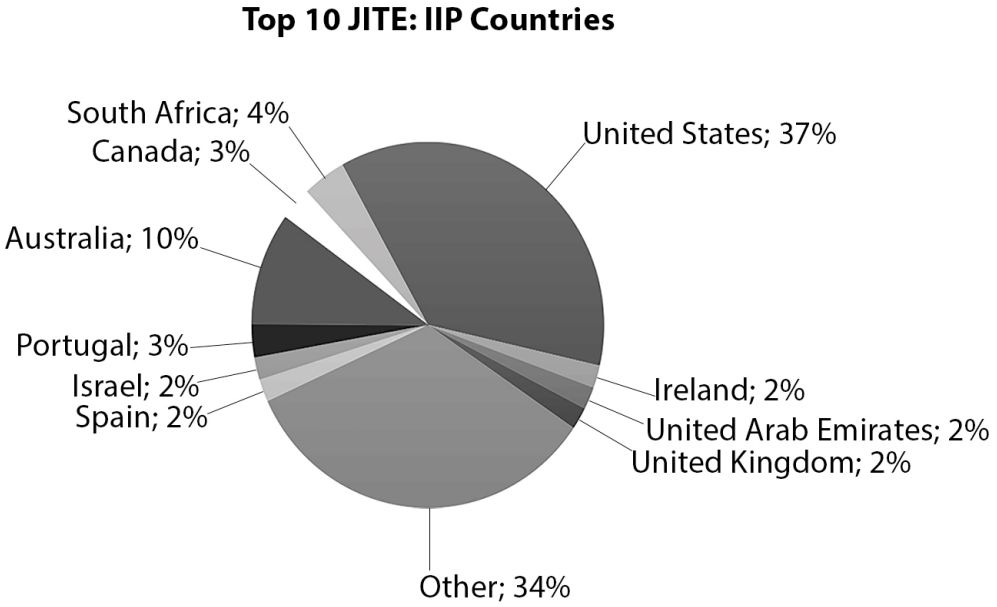

Figure 6. The Percentage of Articles with Authors Representing Various Countries in the Journal of Information Technology: Innovations in Practice, 2008-2019

An Interview with Christopher Cheong, Editor-In-Chief of JITE: Research and JITE: IIP. The following is an interview conducted via email in July of 2020 with Christopher Cheong, Editor-in-Chief of both JITE: Research and JITE: IIP.

Can you tell me a little about the history of the journal?

Unfortunately, I don't know too much about the journals' history, as I became Editor-in-Chief relatively recently (2018).

From what I gather, the journal first started as the Journal of Information Technology Education and it was eventually split into two journals: Journal of Information Technology Education: Research, Journal of Information Technology Education: Innovations in Practice. I think Linda Knight was the (or one of the) founding EiC for both journals. Eli [Cohen] may be the best person to provide you with a historical account of these journals. (I would be curious to know this history of the journals as well!)

What are your main aspirations for the journal?

My aspirations for the journals are for them to be recognized internationally by academics as a significant resource and publication venue for research related to technology and education.

We are improving in this regard. JITE: Research is back to being ranked as a Q1 journal in Scimago. JITE: IIP is not as highly ranked, but that is to be somewhat expected due to its focus on early teaching innovations that have been rigorously tested in practice.

What readership is the journal serving?

I think the readership is very broad. Generally, the journals serve any teaching academic, given its focus on education. The technological aspect is also relevant as there are very few courses in which technology is not used to some degree. In particular, the journals offer academics who are interested in both technology and education a venue to publish their innovative work and research.

Together, the missions of the two journals cover a good part of the spectrum from innovative work that has been tested in practice and based on pedagogical principles to more traditional research in education and technology

What areas of research within informing science do you feel to be the most promising?

This may be a very biased view, but the nexus between education and technology is very promising at the moment. Over the last decade, there has been much more interested in education and technology. This is most likely due to the advance in technology, hardware and software, and applying those technologies to education, such as learning analytics and Education 4.0.

These applications of technology have permeated throughout education. Given the current COVID-19 pandemic, that is very positive as many institutions have been able to leverage these technologies to ensure continuity of education.

The phenomena resulting from COVID-19, e.g., many students being forced to learning online, creates an unprecedented opportunity to study the effects of massive migration of learners to an online environment.

Why are certain areas of informing science poorly understood or under-recognized?

I think there is a lack of awareness of what exactly informing science is. It is probably not as well known as older disciplines that are better established.

Where does this journal sit within the informing science transdiscipline?

JITE: Research is probably one of the better-known ISI journals in terms of article downloads. Also, because IT Education is commonly researched, there is naturally more demand for publications and publishing in the JITE journals.

Are there any disadvantages to being a journal within the informing science transdiscipline?

Research projects currently have a stronger focus on being multidisciplinary than in the past. This has probably reduced many early disadvantages of being in a transdiscipline. The value of having research that crosses between disciplines is actually beneficial nowadays.

Who are the practitioners served by your journal?

Practitioners who are served by our journals are varied. They range from teaching academics who are using technology to do so to software developers or companies who are interested in developing educational software.

How do you try to balance the needs of students, researchers, and practitioners?

Our mission statements invite research on all aspects of technology and education to be published. This includes using technology to facilitate or enhance learning, supporting teaching, and also support teaching administration.

What characteristics in a submission are your reviewers looking for?

First and foremost, a systematic approach to the research. This includes clarity in the aims/objectives, and the process of achieving them. Of course, the work should be based on pedagogical principles.

How do you foresee your journal evolving in the future?

I think the future is promising. As I mentioned before, the intersection between education and technology is very popular at the moment. We get good representation from researchers and research projects around the world.

Thus, the journals have naturally evolved by publishing the trends in technology and education research. I am considering publish more Special Series to help focus our authors to inform our readership on more emerging topics in education and technology

Does your journal tend to favor positivism versus interpretivism, or quantitative study versus qualitative? Why?

I don't think that the journals favor any specific approach to research. This is important because it gives academics from diverse disciplines the opportunity to pursue research in education and technology based on their particular research approach.

How did you become interested in informing science?

I discovered informing science as a young academic when I submitted and subsequently had a conference paper accepted in I^{n}SITE. I have had a longstanding relationship with ISI (and particularly InSITE and JITE – since I have focused my work on education and technology); I have progressed from author, reviewer, editor, associate editor-in-chief, and to now editor-in-chief for the two JITE journals. I am grateful for the opportunities that ISI, I^{n}SITE, and the JITE journals have afforded me in my growth as an academic and researcher.

What do you like the most and the least about being an Editor?

I enjoy seeing some of the state-of-the-art work published by authors in their "raw" format and helping them to shape it, and also helping to shape the transdiscipline as a whole.

I do not enjoy rejecting manuscripts. However, given ISI's mentoring philosophy, even when manuscripts are not accepted, we provide the authors with constructive feedback in the hopes of helping them improve their work and their own understanding.

Can you give me one example where an article published in your journal may have made a measurable impact in the broader world?

That's a very difficult question to answer. I don't think I can answer that as it's just difficult to measure impact in meaningful ways. Every article has had some impact and it's often not clear or recorded what the impact is. I value more the collective impact that the published articles have had rather than the impacts of individual articles. Research, after all, is done by a collective for the collective good.

Interdisciplinary Journal of E-Skills and Lifelong Learning – http://IJELLO.org

The *Interdisciplinary Journal of E-Skills and Lifelong Learning* (2019) (IJELL) describes its mission as publishing on the developments in E-Learning and Learning Objects. IJELL is an interdisciplinary forum that publishes articles on theory, practice, innovation, and research. IJELL assists those who submit articles with timely, constructive feedback. IJELL strives to be the most authoritative on E-Learning and Learning Objects. Before 2015, the journal was known as *The Interdisciplinary Journal of E-learning and Learning Objects* (IJELLO).

Key Statistics. IJELL, formerly IJELLO, was founded in 2005. From its inception through 2019, it published 619 articles, submitted by 433 authors from 162 institutions.

Key statistics relating to authorship and international contributions are presented in Table 6 and Figure 7 (see Appendix for explanation of data collection for Tables 3-10 and Figures 4-11).

Table 6. Most Frequently Published Authors and Institutions: Publishing in Interdisciplinary Journal of E-Skills and Lifelong Learning from 2005 through 2019

Most Published Authors	Country	Number
Nitza Geri	ISR	17
Yoram Eshet-Alkalai	ISR	12
Ina Blau	ISR	11
Nicole Buzzetto-Hollywood	USA	11
Avner Caspi	ISR	10
Arnon Hershkovitz	ISR	7
Rafi Nachmias	ISR	7
Yoram Kalman	ISR	7
Yoav Yair	ISR	6
Fay Sudweeks	AUS	6

Most Published Institutions	Country	Number
The Open University of Israel	ISR	71
Tel Aviv University	ISR	33
University of Maryland Eastern Shore	USA	21
Bar-Ilan University	ISR	16
Murdoch University	AUS	12
Tel Aviv University	ISR	8
Haifa University	ISR	7
University of Southern Queensland	AUS	7
Holon Institute of Technology	ISR	6
Technion-Israel Institute of Technology	ISR	6

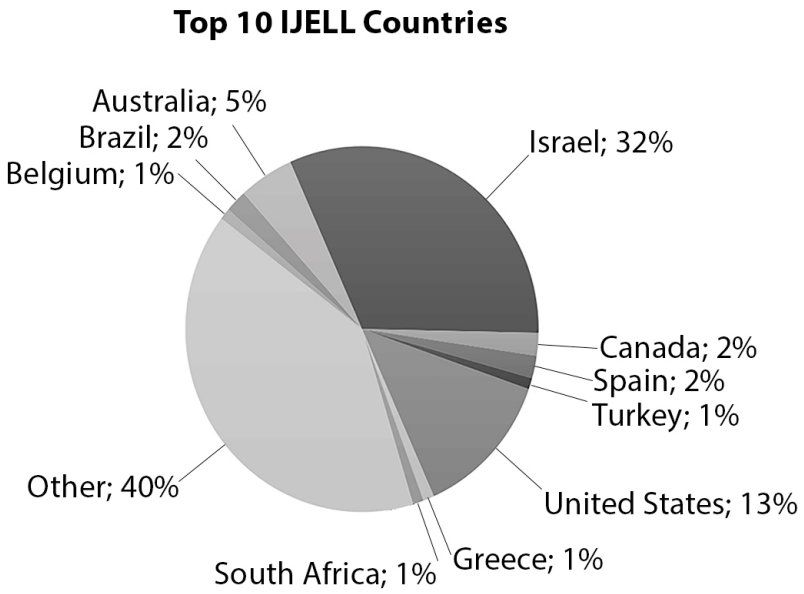

Figure 7. The Percentage of Articles with Authors Representing Various Countries in the Interdisciplinary Journal of E-skills and Lifelong Learning from 2005 through 2019

Fay Sudweeks, Editor-in-Chief of IJELL, was unavailable for an interview at the time of this writing.

Interdisciplinary Journal of Information, Knowledge, and Management – http://IJIKM.org

The mission of the *Interdisciplinary Journal of Information, Knowledge, and Management* (IJIKM) (2019) is to publish on topics related to the use of information and technology to enhance organizational performance.

Table 7. Most Frequently Published Authors and Institutions: Publishing in the Interdisciplinary Journal of Information, Knowledge, and Management from 2005 through 2019

Most Published Authors	Country	Number
Ewa Ziemba	POL	10
Anthony Igwe	NGA	4
Satu Parjanen	FIN	4
Celina Olszak	POL	4
Brenda Scholtz	ZAF	3
Adio Akinwale	NGA	3
June Lu	USA	3
Alexei Botchkarev	CAN	3
Uzoma Ononye	NGA	3
Iwona Oblak	POL	3

Most Published Institutions	Country	Number
University of Economics in Katowice	POL	16
Lappeenranta University of Technology	FIN	15
University of Cape Town	ZAF	13
Victoria University	AUS	7
Bowling Green State University	USA	7
Concordia University	CAN	7
Daffodil International University	BGD	5
Nelson Mandela Metropolitan University	ZAF	5
Victoria University of Wellington	NZL	4
Universitas Brawijaya	IDN	4

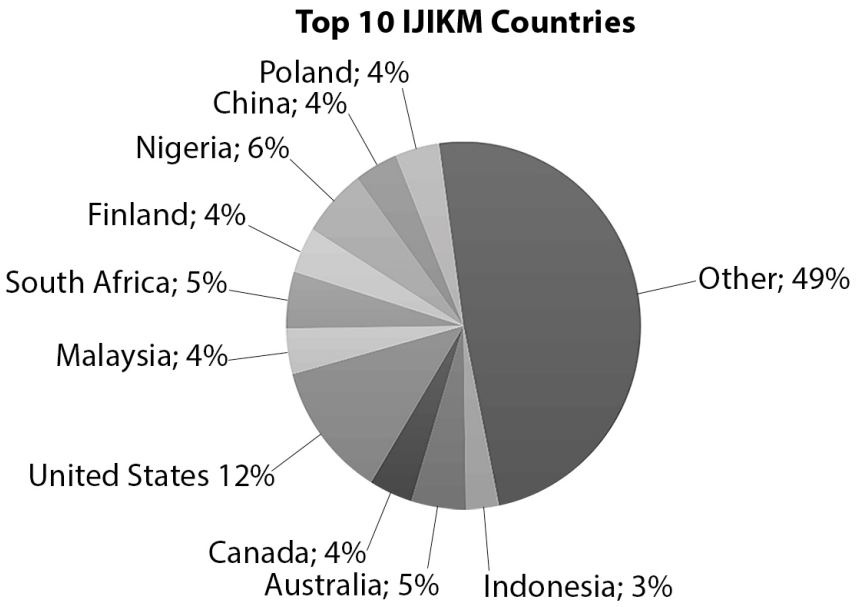

Figure 8. The Percentage of Articles with Authors Representing Various Countries in the Interdisciplinary Journal of Information, Knowledge, and Management from 2005-2019

Key Statistics. IJIKM was founded in 2005. From its inception through 2019, it published 479 articles, submitted by 402 authors from 212 institutions.

Key statistics relating to authorship and international contributions are presented in Table 7 and Figure 8 (see Appendix for explanation of data collection for Tables 3-10 and Figures 4-11).

An Interview with Geoffrey Z. Liu, Editor-In-Chief of IJIKM. The following is an interview conducted via email in May of 2020 with Geoffrey Z. Liu, Editor-in-Chief of IJIKM.

Can you tell me a little about the history of the journal?

The Informing [Science] Institute started publishing IJIKM in 2006 (vol. 1), both online electronically and in [an] annual cumulative volume. Prof. Mike Hart served as the previous EiC of the journal. Sorry, that's all I know. For more history, please contact the founder of ISI, Eli Cohen.

What are your main aspirations for the journal?

[A] multidisciplinary platform for publishing research on information/knowledge management and technology-related issues from international research communities.

What readership is the journal serving?

Academics as well as industrial practitioners, though mostly the former.

What areas of research within informing science do you feel to be the most promising?

Technology-driven social/individual behaviors of information/knowledge processing and management

Why are certain areas of informing science poorly understood or under-recognized?

At the organizational level, [the] complexity, multitude, and interwoven influences of factors are involved. At the individual level, [the] inherent difficulty of observing and studying the cognitive/mental process[es] under [the] influence of social factors.

Where does this journal sit within the informing science transdiscipline?

Organizational issues and technological use for information/knowledge-related task[s]/process[es].

Are there any disadvantages to being a journal within the informing science transdiscipline?

None [that I'm] aware of.

Who are the practitioners served by your journal?

Managers, policymakers, consultants, and research planners of industries and various organizations

How do you try to balance the needs of students, researchers, and practitioners?

By valuing practical significance of research, while at the same time striving for theoretical rigor, connection to scholarly literature, and methodological soundness.

What characteristics in a submission are your reviewers looking for?

Significance and potential of original contribution to start, followed by quality of literature support and theoretical strength, methodology, and rigor of analysis for findings.

How do you foresee your journal evolving in the future?

Hopefully for a better balance of quantitative and qualitative research.

Does your journal tend to favor positivism versus interpretivism, or quantitative study versus qualitative? Why?

Not much an issue of "favoring," but a fact of submissions we get. Most are of quantitative nature. Though we encourage and [get] some qualitative and theoretical works, they tend to be weaker in scope and depth for some reason.

How did you become interested in informing science?

[I] have been researching and publishing on information-related issues in the field of library and information sciences.

What do you like the most and the least about being an Editor?

Most: helping others to bring their research to fruition. Least: being the one to make and communicate [the] decision of rejecting someone's work albeit with input from reviewers.

Can you give me one example where an article published in your journal may have made a measurable impact in the broader world?

Tough one to answer. I don't have one handy at this point.

International Journal of Doctoral Studies – http://IJDS.org

The mission of the *International Journal of Doctoral Studies* (2019) (IJDS) is to publish articles covering a wide variety of issues in doctoral studies across any discipline. IJDS welcomes submissions from faculty members and academic administrators actively involved with doctoral programs. Book reviews are also accepted. Submissions to IJDS must focus on issues directly related to doctoral studies.

Key Statistics. IJDS was founded in 2006. From its inception through 2019, it published 610 articles, submitted by 510 authors from 256 institutions.

Key statistics relating to authorship and international contributions are presented in Table 8 and Figure 9 (see Appendix for explanation of data collection for Tables 3-10 and Figures 4-11).

Table 8. Most Frequently Published Authors and Institutions: Publishing in the International Journal of Doctoral Studies from 2006 through 2019

Most Published Authors	Country	Number
Michael Jones	AUS	9
Amanda Rockinson-Szapkiw	USA	7
Yair Levy	USA	6
Kirsi Pyhältö	FIN	5
Anthony Onwuegbuzie	USA	5
Lucinda Spaulding	USA	5
Lynn McAlpine	GBR	4
Pamela Felder	USA	4
Sydney Freeman Jr.	USA	4
Jenna Vekkaila	FIN	3

Most Published Institutions	Country	Number
Sam Houston State University	USA	19
University of Helsinki	FIN	14
Florida Atlantic University	USA	11
University of Wollongong	AUS	11
Robert Morris University	USA	11
Liberty University	USA	10
Nova Southeastern University	USA	8
University of Florida	USA	8
University of Maryland	USA	8
Georgia Southern University	USA	8

An Interview with Michael Jones, Editor-in-Chief of IJDS. The following is an interview conducted via email in May of 2020 with Michael Jones, Editor-in-Chief of IJDS.

Can you tell me a little about the history of the journal?

I took over as the second EiC in 2012 after serving as an Associate Editor for a short period of time. The journal had been in its seventh year at that time. However, publication rates were low. I commenced with the vision of increasing the impact and reach of the journal, and also ramping up the level of mentoring that was adopted to assist developing authors. The journal quickly moved from a publication rate of 8 or 9 papers per year to 20 plus. We currently receive 300-400 papers per year, and the journal is growing in esteem.

What are your main aspirations for the journal?

My strongest focus is to increase the quality and impact of the journal. I would like it to be the most highly regarded journal in its field.

What readership is the journal serving?

It has a wide readership because it addresses issues with doctoral education, and this bridges almost every discipline and area of academic interest. I would like to think that our core set of readers are practitioners looking for assistance, and this includes both academics and policy writers, and people wanting to further this area of research.

What areas of research within informing science do you feel to be the most promising?

I don't know

Why are certain areas of informing science poorly understood or under-recognized?

I don't know. I do realize that there is some confusion or fuzziness around the concept: 'Informing Science'. I am still not totally clear on what constitutes this area of science.

Where does this journal sit within the informing science transdiscipline?

I guess it both stands alone and spans them all. It is a different genre.

Are there any disadvantages to being a journal within the informing science transdiscipline?

No, readers don't really access the journals or the papers through the ISI Portal. Papers are mostly accessed through databases and through Google Scholar.

Who are the practitioners served by your journal?

Doctoral Student Supervisors and Policy Makers

How do you try to balance the needs of students, researchers, and practitioners?

We accept papers that meet the needs and interests of all of these groups, either individually, or across all three in the one paper.

What characteristics in a submission are your reviewers looking for?

A robust and credible research approach; novelty in the area of study; theoretical and practical value of the findings.

How do you foresee your journal evolving in the future?

As the journal increases in impact and quality, we will see an increase in the quality of papers accepted for publication. One problem though is the limited growth in the field of knowledge around doctoral education. There is little growth, so it is difficult to find novelty.

Does your journal tend to favor positivism versus interpretivism, or quantitative study versus qualitative? Why?

We do not favor one over the other. However, there is probably a slightly higher ratio of qual v quant.

How did you become interested in informing science?

I enjoyed the conferences, and my involvement in ISI slowly increased over time.

What do you like the most and the least about being an Editor?

It is a lot of work, and it never goes away, being the EiC of IJDS is like Sisyphus pushing his rock, it is never-ending. On the upside, it is rewarding to see the journal slowly grow in esteem.

Can you give me one example where an article published in your journal may have made a measurable impact in the broader world?

N/A

Issues in Informing Science and Information Technology Journal – http://IISIT.org

The purpose of the *Issues in Informing Science and Information Technology* journal (2019) (IISIT) is to share knowledge across fields that use information technology. The articles in IISIT provide best practices on how to inform clients using IT and IT research.

Key Statistics. IISIT was founded in 2004. From its inception through 2019, it published 1294 articles, submitted by 821 authors from 250 institutions.

Key statistics relating to authorship and international contributions are presented in Table 9 and Figure 10 (see Appendix for explanation of data collection for Tables 3-10 and Figures 4-11).

Table 9. Most Frequently Published Authors and Institutions: Publishing in Issues in Informing Science and Information Technology from 2004 through 2019

Most Published Authors	Country	Number
Azad Ali	USA	18
Samuel Sambasivam	USA	13
Dimitar Christozov	BGR	10
Bill Davey	AUS	9
Iwona Miliszewska	AUS	9
Raafat Saadé	CAN	8
G. Adesola Aderounmo	NGA	8
Ruti Gafni	ISR	8
Stefanka Chukova	NZL	7
Plamen Mateev	BGR	7

Most Published Institutions	Country	Number
Victoria University	AUS	32
Indiana University of Pennsylvania	USA	22
University of Cape Town	ZAF	21
RMIT University	AUS	19
Concordia University	CAN	15
Arcadia University of Applied Sciences	FIN	14
Robert Morris University	USA	13
Azusa Pacific	USA	13
Babcock University	NGA	12
Zayed University	ARE	11

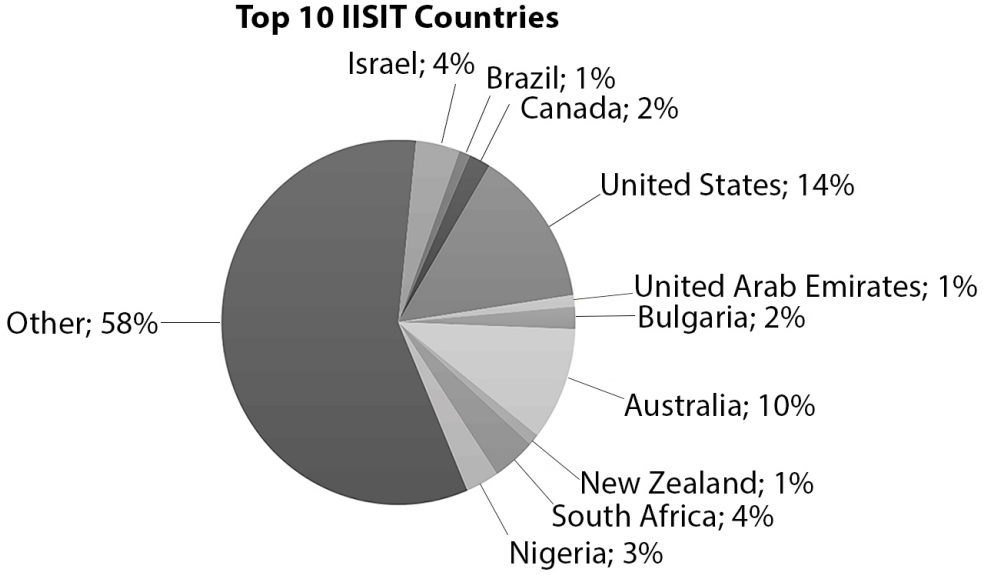

Figure 10. Percentage of Articles With Authors Representing Various Countries in Issues in Informing Science Journal from 2004 through 2019

An Interview with Eli Cohen, Editor-in-Chief of IISIT. The following is an excerpt of an interview conducted via email in May of 2020 with Eli Cohen, Editor-in-Chief of IISIT. Cohen is also Editor-in-Chief of InformSciJ.

Can you tell me a little about the history of the journal?

In 2003, we started fast-tracking highly rated submissions to the InSITE conference to Informing Science Institute journals. Editors-in-Chief of our journals looked at the original paper, the reviews, and the revised paper to determine if they could offer the author publication of a more advanced version of the paper in their journal. The problem was that the conference received many excellent papers whose content fell outside the specialized mission of these journals. So in 2004, I started IISIT to offer a venue to fast-track the best papers submitted to the InSITE conference that were such orphans.

What are your main aspirations for the journal?

The main aspiration is to showcase excellent papers that do not fit well with any of our other journals' mission.

What readership is the journal serving?

Surprisingly, the journal has an extensive readership (as determined by its exceptionally high download count) and impact (measured by its h-index of 27).

What areas of research within informing science do you feel to be the most promising?

n/a

Why are certain areas of informing science poorly understood or under-recognized?

n/a

Where does this journal sit within the informing science transdiscipline?

The journal publishes papers on topics not otherwise within the mission of other journals we publish.

Are there any disadvantages to being a journal within the informing science transdiscipline?

An advantage of being published by the institute is its superb paper review system which may be the best in the industry. A disadvantage is that since the journal's mission is to advance science and not make money, it looks less polished on the screen than some others.

Who are the practitioners served by your journal?

We serve researchers only.

How do you try to balance the needs of students, researchers, and practitioners?

We serve researchers only. We don't care if the author is a student, practitioner, famous researcher from a prestigious university, or teaches at a teaching college; we accept papers based solely on their contribution to science.

What characteristics in a submission are your reviewers looking for?

Ability and willingness to mentor authors

How do you foresee your journal evolving in the future?

Do not see an evolution

Does your journal tend to favor positivism versus interpretivism, or quantitative study versus qualitative? Why?

No, it doesn't. The sole issue is the contribution to science.

How did you become interested in informing science?

Intellectual curiosity.

What do you like the most and the least about being an Editor?

Most: the ability to serve. Least: having to fill out forms like this.

Can you give me one example where an article published in your journal may have made a measurable impact in the broader world?

I cannot think of any paper in any non-hard-science journal that made a measurable impact in the broader world, other than those by Tversky and Kahneman. They didn't publish in IISIT.

Journal for the Study of Postsecondary and Tertiary Education – https://JSPTE.org

The mission of the *Journal for the Study of Postsecondary and Tertiary Education* (JSPTE) (2019) is to promote and advance scholarship in the field of higher and postsecondary education. Having published its first issue in 2016, the journal is relatively young. As noted below by Crystal Chambers, JSPTE is exploring ways to broaden its authorship and readership.

Table 10. Most Frequently Published Authors and Institutions: Publishing in the Journal for Postsecondary and Tertiary Education from 2016 through 2019

Most Published Authors	Country	Number
Sydney Freeman Jr.	USA	7
Crystal Chambers	USA	7
Jessica Samuels	USA	3
Crystal Garcia	USA	3

Most Published Institutions	Country	Number
University of Idaho	USA	14
East Carolina University	USA	9
Auburn University	USA	6
Texas Tech University	USA	5
University of Massachusetts Amherst	USA	4
University of Nebraska Lincoln	USA	4
Georgia Southern University	USA	3
The Ohio State University	USA	3
University of Iowa	USA	3
University of Louisville	USA	3

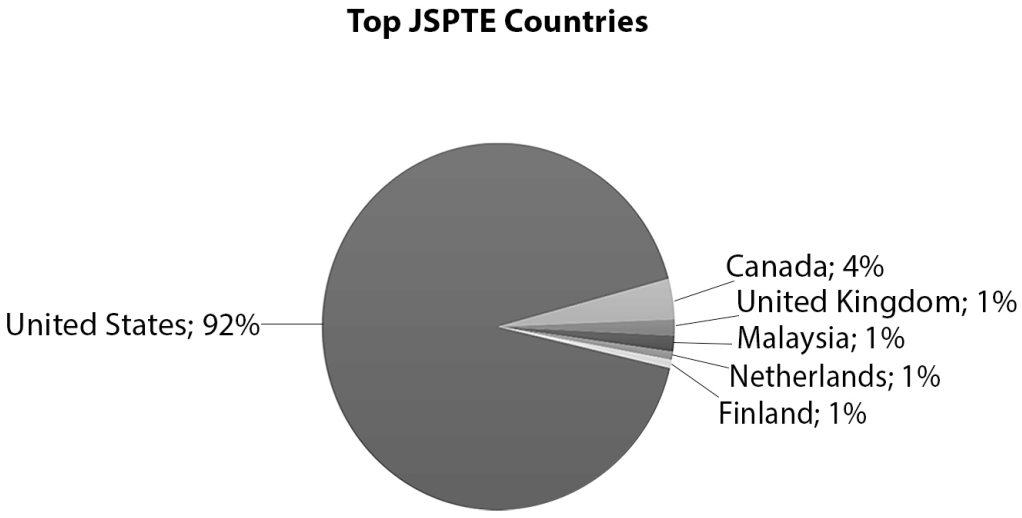

Figure 11. Percentage of Articles With Authors Representing Various Countries in the Journal for the Study of Postsecondary and Tertiary Education from 2016 through 2019

Key Statistics. JSPTE was founded in 2016. From its inception through 2019, it published 141 articles, submitted by 115 authors from 76 institutions. Key statistics relating to authorship and

contributing institutions are presented in Table 10 and Figure 11 (see Appendix for explanation of data collection for Tables 3-10 and Figures 4-11).

An Interview with Crystal Chambers, Senior Editor-in-Chief of JSPTE. The following interview was conducted via telephone with Crystal Chambers, Senior Editor-in-Chief of JSPTE, in August of 2020.

Can you tell me a little about the history of the journal?

The journal was the response to a lack of having a journal about teaching and learning programs in my field, which is higher education as a field for study. And so we began as part of the Council for Advancement of Higher Education Programs, which is in the Association for the Study of Higher Education.

And within there, we noticed that people were presenting year after year on these different programmatic innovations. However, there wasn't an outlet for their work, and … we tried within the structure there, for example, *The Review of Higher Education* is one of the top journals in the field, and it's the one directly connected to the conference. We tried to even get a guest-edited version of that issue. That wasn't allowed. And then, when we went through the normal vetting process to have a set of pieces and part sub-issue, it wasn't put in. There just was not a value on the scholarship of teaching within that journal.

And so we set out on the space, Sydney Freeman and I, to be able to get work out to fields on what's working in various spaces in terms of teaching and learning and programming in our field.

What are your main aspirations for the journal?

My main aspiration is for it to be a reputable space, for people to learn about higher-ed programs, for program coordinators and faculty to be able to exchange ideas about what they're doing in the programs as well as what they're doing in the classroom, what is it that our students need to know.

Right now, [because of] COVID-19, for example, there's a lot of things that we have to learn on the fly. Are there things that we can share with our peers in terms of what we're learning right now?

What readership is the journal serving?

Primarily faculty in higher education as a field of study. We're all academics, we're all professors or otherwise engaged in the academic enterprise. But we're literally the people who study things like the faculty, students, their college trajectories, graduation, retention, organizational structures, etc., and so that would be our primary audience: folks within that field.

But then there is this broader audience. If you're talking about anyone in academia who just wants to learn a little bit more about how people are thinking about higher education, administration, and leadership, and that sort of thing.

What areas of research within informing science do you feel to be the most promising?

To me, that's a very vague and open question. I think what to me is a promising thing — to quote Ben Franklin — "the knowledge that is most useful to us." Because, to the extent that we have articles that people can use and adapt to their own classroom and programmatic purposes, I think that we've fulfilled our purpose.

And it used to be the idea that you wrote this journal article, and it sat on the shelf collecting dust. I don't know if we have dust in the online atmosphere, but whatever that equivalent is.

The worst thing isn't necessarily for it not to be read, but for it to not have a useful purpose in terms of education or practice.

Why are certain areas of informing science poorly understood or under-recognized?

I think it's hard to conceptualize informing sciences, as it is necessarily interdisciplinary and multidisciplinary. Most academics are trained within a specific discipline or field, which means that if scholarship doesn't come within certain parameters, they really have a hard time engaging it or even recognizing it as scholarship.

Where does this journal sit within the informing science transdiscipline?

So, I mean, we're informing people within our specific field, which is higher education as a field of study. But then again, the broader set of higher education leaders and administrators.

Are there any disadvantages to being a journal within the informing science transdiscipline?

I think the only disadvantage that we have is really that my field is less connected than some of the other journals; it's more of a business or IT focus, so trying to get people from my field to attend ISI conferences and other activities [is the challenge] because it's not the norm in education. Our travel budgets tend to be a little bit smaller. We tend not to always have grant funding to be able to support travel and engagement. So it makes it a little bit harder for us.

Who are the practitioners served by your journal?

The practitioners? Pretty much, this is a question of who are the people in your neighborhood? And the people from Student Affairs administrators to people in Academic Affairs, in the business of higher education. Occasionally I've sent things off to our lawyers from our journal. I've used some of our pieces to go to the board of trustees, especially when we're talking about things like presidential searches from things that we can learn and pass on as a matter of practice.

How do you try to balance the needs of students, researchers, and practitioners?

I think because we are very much practice-oriented, we want people to write articles in a way that people can, in turn, share them with their students as well as broader audiences. If they're so esoteric in terms of either the theoretical framing or the instrumentalization of the method, we'll probably ask them to tear that down a little bit because accessibility is a big deal for us.

What characteristics in a submission are your reviewers looking for?

Something that is well organized. We do go through and kind of look at the articles that we rejected from the journal. The vast majority was because you had a research question that was not connected to a theoretical framework, that wasn't connected well to the literature or the research method. And so you certainly can't pull it through to a discussion and making sure that there are tight connections between the questions that are asked, the literature that supports the questions, as well as the research method being tied to the instrumentation. That's absolutely key.

How do you foresee your journal evolving in the future?

Well, right now, I'm not sure if you know, but we're kind of on a little bit of a pause because we're trying to figure out whether or not there is a—well, first, we've got a lot of competition recently from other journals in our area. … We see them as direct competitors, and they have a little bit more funding to work with than we do. And so, I think because we want to be that space that people go to, that they learn about how to teach learning programs in

higher education, getting back to those roots, because I think we have gotten very broad in terms of the topics that we accepted. And just being in general more focused.

[The competition is] for readership, less so for funding. But readership for editors and reviewers.

Does your journal tend to favor positivism versus interpretivism, or quantitative study versus qualitative? Why?

I think we tend to have more qualitative-oriented journals, and I think that's just the general trend in the field. I serve as program coordinator for the Council on Higher Education Programs, and for the general ASH Conference almost 60 percent of all the submissions are qualitative. And so I think it's just the focus and a reflection on that. And what we're seeing in terms of quantitative articles, you do have the influence of the Carnegie Project on the Education Doctorate and emphasis on descriptive statistics over inferential ones. I mean, there's a certain modular simplicity to making things understandable: this is what the lay of the land is and describing it really well. And especially if we're talking about specific contexts within a program, that predictive and other analytical tools probably aren't as necessary. The other thing is, in terms of the field, we're seeing a lot of people who do high-level quantitative modeling spending more time in other areas or with other conferences.

How did you become interested in informing science?

Well, Sydney introduced it to me and we were looking around at different spaces for the journal. So for us, the idea of a journal came first, and the second question was: how do we make this happen? And the ISI was very helpful in getting us started. And for that we will always be grateful.

What do you like the most and the least about being an Editor?

As an editor, I do like the idea of being able to kind of shape the field and get people thinking about ideas, especially when we're talking about old ideas and maybe looking at different ways. It's great that the things that we teach in terms of the cannon in my field is changing, is evolving. And I think it is influenced by some of our work here.

The things that I like least? Well, it's time. It just takes [time]. I don't know if you're watching this *Lucifer* [the television series] or anything like that, but Amenadiel's power to pause time momentarily so that you can do a few more things? I would love to have that people power right now. And I never thought it was a big deal until I had more tasks on my plate.

Can you give me one example where an article published in your journal may have made a measurable impact in the broader world?

We had a piece on the goal of the precedence of … diversity on how it evolved and it was featured in *Inside Higher Education*, which is a major news outlet for people in higher education, broadly speaking.

COLLABORATIVE JOURNALS, ARCHIVED ISI JOURNALS, & REPOSITORIES

The Journal of Information Technology Education: Discussion Cases – http://JITEDC.org
Informing Faculty – http://InformingFaculty.org
Muma Case Review – http://mumacasereview.org
Muma Business Review – http://mumabusinessreview.org

The *Journal of Information Technology Education: Discussion Cases* (JITE: DC) is a repository that publishes discussion cases pertaining to problems in which information technology plays a central role. These

cases typically present employees, managers, or IT professionals' problems and present context designed to facilitate classroom discussion.

The *Informing Faculty* journal's mission is to provide discussion cases that address the challenges faced by faculty participating in higher education (Gill, n.d.). During its first and only year operating as a journal, it published 10 case studies. Nine of these case studies were developed for workshops hosted by the *Center for 21st Century Teaching Excellence* at the *University of South Florida*. The combination of publishing discussion cases rather than research cases and focusing on a domain in which such cases are not routinely used (higher education) proved to be too great a barrier to potential authors. Thus, in the absence of sufficient submissions, the journal transitioned into a repository in 2007, though it retains the ability to publish any such cases that may be developed in the future.

Muma Case Review (MCR) (2020) is an open-access journal that publishes business discussion cases and technical notes. The program was founded in 2015 within the Muma School of Business to make business case reviews more accessible to authors and students.

Muma Business Review (MBR) (2020) is an open-access journal that publishes peer-reviewed empirical and conceptual research for use by both business researchers and practitioners. The journal balances academic rigor with readability and practical importance while making the journal accessible to authors and readers.

An Interview with Grandon T. Gill, Editor-in-Chief of MUMA Business Review, JITE: Discussion Cases, & Informing Faculty and Associate Editor of Muma Case Review. The following is an interview conducted with Grandon T. Gill via telephone in May of 2020. Gill is Editor-in-Chief of *MUMA Business Review*, *JITE: Discussion Cases*, and *Informing Faculty*, as well as Associate Editor of *MUMA Case Review*.

> **Can you tell me a little about the history of the journals?**
>
> In the case of *Informing Faculty*, what we decided to do is turn it into a repository instead of a journal. So, essentially all the early cases of *Informing Faculty*, I was heavily involved with. It turns out that writing discussion case studies for higher education is writing artifacts for a market that simply does not exist. I think that my assumption was that [because] there was no outlet for those things, we might attract a lot of submissions. But it turns out that there's no outlet for those things because no one is writing them, except me!
>
> So, what we decided to do was [the following], if someone comes up with a case like that, since there is no obvious way of getting something like that published, we put it in *Informing Faculty*. But we're not pushing anything, and I don't think we've had any submissions for about five years, so what we do is tell people to contact me.
>
> Now, the *JITE: Discussion Cases* is a different situation. In *JITE: Discussion Cases*, we had a fairly robust set of submissions. In 2016, the Dean [of the College of Business at the University of South Florida] decided that we would launch some journals that would be good outlets for DBA students, not just from our program, but from programs all over the country and the world. And so we launched the *MUMA Business review* and the *MUMA Case Review*.
>
> The *MUMA Case Review* was needed because a lot of the cases we produce in our program are not IT-related cases, so they wouldn't fit *JITE: Discussion Cases*. For a while, we would continue to reprint MUMA Case Review cases in *JITE: Discussion Cases*, just so *JITE: Discussion Cases* would continue to exist.
>
> But, finally, we decided that it was too much work. We were concerned about the perception. I don't really care about things like publication counts, but some people were concerned that it might be looked as if they were inflating their publication count if the same article appeared in two journals, even though it was clearly specified that it was a reprint.

So, we decided to basically route anything that went to *JITE: Discussion Cases* to the *MUMA Case Review*, which has been publishing a lot of cases. Maybe half of them are in the IT area and the other half are not."

The thing is, since the Dean [at the University of South Florida College of Business] was contributing some funding towards *MUMA Case Review* and *MUMA Business Review* — mainly someone to do some proofing, … — we didn't feel like we could redirect cases to the JITE: DC since he very much wanted the MUMA journal to be a success.

And so that's the long story of those two journals. JITE: DC is no longer active, but anything that goes there gets passed along to the *MUMA Case Review*. Because essentially they have the same format, the same requirements. The *MUMA Case Review* just has a wider scope of articles it accepts.

And in case of *Informing Faculty*, if a submission came along that was a good fit with that, we'd be willing to take it to publication, but it's more of a repository. It's a place where you can find some cases on these things as opposed to being a journal that tries to maintain an ongoing series of cases.

Is it fair to say the MUMA journals that you mentioned were inspired by, but are not formally part of the ISI journals? Or are they considered to be part of the ISI journal family?

Well, they're in a different category. They're called "ISI Partner Journals". To be a partner journal for ISI, you have to agree to the basic philosophy of the Informing Science Institute, which is: we put a much greater emphasis on mentoring our authors in the review process as opposed to serving as gatekeepers, and we try to always be very helpful. We publish everything open-access. We do not charge for our publications.

So, all of those things are in line with the philosophy, and, of course, we use the ISI's peer review system. But the editorial control of the journals, the quality control, is our responsibility in the MUMA journals, and we pay the Informing Sciences a fee for using their review system.

What are the names of the two MUMA journals, and how do they differ?

The *MUMA Business Review* and The *MUMA Case Review* are the two journals. The *MUMA Case Review* publishes strictly discussion cases, so they are case studies about a decision that needs to be made.

The *MUMA Business Review* publishes twelve different categories of articles. And they are designed for a practitioner or a practitioner-scholar audience. We have twelve different templates, including two case study templates, but they're research case studies and example case studies.

The Discussion Case Study is like a detective story with the last chapter ripped out, and it's designed so you discuss possible solutions in the decision that needs to be made.

Example case studies tell a complete story arc, and maybe some lessons learned from the story, and a Research Case Study typically tries to relate a case or a collection of cases to some underlying theory. Each template describes in detail what we're looking for.

But we have lots of other templates. We have a Research Question Review, which is kind of like a literature review, but it's more focused on answering the question for practice using the academic literature. We have an Industry Analysis. We have an Empirical Findings template. We have a Novel Idea template. We have a template for research debates. We have a template that specifically involved talking about how a research method might be applied to practice.

There are a dozen templates, and I'm sure I've missed some, but that's the basic idea. We actually lay out the journals. The *MUMA Business Review* is laid out in InDesign, and so it has a slightly more professional look to it. Whereas the *MUMA Case Review* is like the other informing science journals and the authors are more responsible for the layouts themselves.

And if you go to MUMABusinessReview.org or MumaCaseReview.org, you can actually see some examples of some of the publications. Right now, because of COVID, I'm way behind on processing stuff for the *MUMA Business Review*. I actually have about 14 or 15 articles that need to be proofed and laid out. I've just been so busy, I haven't had a chance to do that. All my courses ended this week, so hopefully I'll have a little bit more time for that.

What are your main aspirations for each of these journals?

The *Informing Faculty*, it's basically a repository. It's just a place where we can put a case study that deals with higher education decision-making.

I don't have any particular ambitions for it, but if someone has a case like that, and it will help them get it published, then *Informing Faculty* could supply that need. … If it helps someone out, we would certainly consider it.

For JITE: DC, my goal is to have any JITE: DC redirected to the *MUMA Case Review*. Because we now have a reasonably large set of peer reviewers for *MUMA Case Review*, we can actually do peer review of case submissions.

I'm a big believer in open-access case studies. I don't like the idea of charging $6 a case for students to use Harvard Business School cases, even though obviously I have used a bunch of them myself over the years. And at USF our library has a subscription so I can use those cases now for free.

I have done a lot of work in South Africa. I have worked with the Vietnamese. There are a lot of places where it's too expensive, and open-access cases are just an advantage as far as I'm concerned.

For the *MUMA Case Review*, my ambition is to expand the number of sources of cases that we have. The vast majority of cases for *MUMA Case Review* come from our DBA program and our Executive MBA program, both of which have case-study writing as one of the requirements, but I'd love to get cases from more sources."

We did recently publish a series of 16 cases in the *MUMA Case Review* that came from South Africa. Again, that came out of my Fulbright work. These were cases on information and communications technologies for development, but I'd like to see more of that.

For the *MUMA Business Review*, I would definitely like to see submissions from practitioner-scholars all over the world. We're getting some submissions from other DBA programs already. I have enthusiastically pushed the journal at executive DBA conferences.

One of the problems with DBA programs is that they encourage people to do research for publication, and in some cases, they obsess about it, but they don't have any outlets that are specifically designed for people in those programs. Because doing practitioner scholarship is very different from doing scholarship for scholarship's sake.

For example, a quick-and-dirty literature review dealing with a specific problem could be quite useful for practice, especially if it has some synthesis, but you'd never get it published in an academic journal because academics never actually apply this stuff that we're researching. They just come up with theories.

As a result, a lot of people in DBA programs don't really have good outlets. I think we offer a potentially very good outlet for programs like that. If we get enough submissions, we may come up with some submissions that people actually want to read!

So, my main goal is to provide an outlet to which people can take this work that they do in programs like ours and make it available to a broader audience. Because if you never do that, then you never really have the incentive to polish your work beyond what it takes to get a good grade in your class.

What readership is the journal serving?

Well, for *Informing Faculty*, I doubt there's any readership! I think there are probably some spiders that pull those articles and that most of the readership is probably automated bots that are searching for things on the internet.

For JITE: DC, there are still probably some places that use the cases that we've published. I use it for a case that we've published in the past from time to time. The problem is we don't have any way of tracking where our cases are being used. So we really don't know if anyone's using them at all.

The intended readership for JITE: DC were academics who teach in the information systems area and want to use case studies, and then, of course, the students who would be reading those case studies as part of a class assignment. That would be the same audience for the *MUMA Case Review*.

They are discussion cases, and they are cases that are designed to be used in the context of courses as a basis for discussion.

For the *MUMA Business Review*, I would say the intended audience is both practitioners, that is to say, executives, and practitioner-scholars. People in DBA programs who are actually trying to make scholarship accessible to practice.

Our alumni are interested in *MUMA Business Review* sometimes, since they've participated in the past. And people who are enrolled in DBA programs are interested in it, but the intended readership would be business executives.

The whole idea of this is that we're trying to make research that was developed through rigorous methods accessible to people in practice.

What areas of research within informing science do you feel to be the most promising?

Well, right now, the themes that I see emerging are the themes related to the impact of complexity on informing processes. That's my sort of central theme of research. We have another research stream that [we are] looking at: essentially, creating informing knowledge management systems. The principal author in that area is Ulrich Schmidt out of Botswana in South Africa, and he's published a lot in recent issues.

We've got a transdisciplinary theme, which is basically understanding the role of transdiscipline, which has a number of articles that have come in recently.

Eli Cohen and I have been trying to generate interest in [submissions about] fake news, but we're not getting as many submissions as we'd hoped. Eli Cohen is very interested in deception, and I'm very interested in the factors that encourage the dissemination of fake news. So we tried to do a special series on that, but we did not get the kind of submission volume that we had hoped.

Why are certain areas of informing science poorly understood or under-recognized?

Well, that's a challenging question, and I would argue that all interdisciplinary and transdisciplinary research suffers from the fact that we don't have a clearly-defined audience for outlets of the type of prestige that would attract researchers, so a lot of informing science research really is built around the synthesis of research in other areas. And I believe synthesis

is very important, but, in part, what you're doing is trying to re-package ideas that came in one area and communicate the potential applicability to other areas.

This is a type of research that's very hard to attract interest in, in a world where everything is segmented in departmental structures. One of the things about business, and probably true about social sciences in general, is that the audience for our research is other researchers, not people in practice.

And so, if you do not have a body of other researchers who are doing research in informing science, you are essentially publishing research without much of an audience. If you don't have an audience, then you're going to have trouble finding peer reviewers who really have an understanding of what informing science is about. You are going to have difficulty finding readers. You are not going to end up on journal rankings, which is going to reduce the incentive for researchers to try to do this kind of synthesis research. And as a consequence, it's very hard to gain traction in the academic world.

These are major obstacles. It's not entirely clear how to overcome them. If we could develop a few really novel, demonstrably useful theories, then perhaps informing science could achieve the kind of visibility that the study of complex adaptive systems achieved almost thirty years ago.

People still talk about complex adaptive systems, and there are still people doing some research in it, but surprisingly little useful information has come out of it. Basically, we have come to the conclusion that these systems are wicked, and it's hard to understand them.

Where do these journals sit within the informing science transdiscipline?

Within the transdiscipline, these journals represent— especially the two active ones, the *MUMA Case Review,* and the *MUMA Business Review*— an attempt to move across a narrowly-defined small world of informing system boundaries.

So we have an informing system that practice uses to inform itself. We have an informing system that academics use to inform each other. What these journals are attempting to do is cross those boundaries and move that research from one small world of academia to practice. And, when we are talking about the *MUMA Business Review* in particular, because a lot of the people doing the research are practitioners, they are crossing from the world of practice over into the world of research. So I would say that boundary spanning is the key informing science aspect of these journals.

Are there any disadvantages to being a journal within the informing science transdiscipline?

I think there's a disadvantage being a new journal anywhere. It's possible if you have got a big publisher behind you and a very strong review board to bootstrap yourself into the rankings. But what you would need to do when you're doing that is that you need to fit within some disciplinary boundaries so that you can identify the community that you'd like to recognize you. If you don't have a community, then it is very hard to get recognition. Unfortunately, just having a good review board does not necessarily help a journal survive.

Now, there is a journal that was created by the Executive DBA Council called the *Engaged Management Review,* and they put together an absolutely top-flight review board with very distinguished academics. Basically, the purpose of that journal is to write about practitioner scholarship. That is the big thing about DBA programs. But, over the course of its five-year existence, it has published, I think, around 10 articles. And two-thirds of those articles have been written by members of their editorial board. So essentially, their editors are writing for their own journal. That's the type of problem you have when you are launching a new journal.

I don't think the issue is affiliation with the Informing Science Institute per se. Now, of course, without a marketing budget, it is even harder to gain traction for a new journal. I don't know the exact number, but I would not be surprised if there were a million journals in the social sciences, so when you add a new journal, you really have a major challenge just getting anyone to notice it.

Who are the practitioners served by your journals?

In theory, *Informing Faculty* was intended to serve people who teach in higher education, so the practitioners were educators. That journal actually did not have to try to expand boundaries. The problem with educators is, for most people in the field of education, they are not really familiar with the use of discussion cases, which are kind of uniquely situated in business. So we were creating teaching tools that they didn't know how to use. But educators were the target there. For *JITE: Discussion Cases*, the principal audience was business faculty and information systems and their students, so here, once again, the target was faculty.

For the *MUMA Case Review*, the target audience is business faculty and their students. ... Discussion case studies are a pedagogical tool. They are not something you read for pleasure. These cases are something that you put to use in the classroom.

For the *MUMA Business Review*, the target audience is business practitioners who are interested in learning about the results of rigorous research because you are not going to get that in the academic journals. The most desired audience would be similar to that of the *Harvard Business Review,* but they have a budget in the millions and an existing reputation to attract authors. So they can attract very well-known authors and very well-known executives, whereas, in the *MUMA Business Review*, we have no budget. We have no reputation. … It may be a long time before we attract a practitioner audience, but you have to start from somewhere.

How do you try to balance the needs of students, researchers, and practitioners?

That is a tough question. The needs of students are clarity of writing, completeness of context, or sufficiency of context. … Those are also the needs of faculty.

Regarding the needs of the researcher, the researcher is almost always going to be a faculty or student, so the researcher is a member of the target audience.

For *MUMA Business Review* it's a little bit clearer: to meet the needs of the researcher; we're providing an outlet that's not well served by other journals. We're trying to give the researcher an opportunity to write his or her findings in a manner that's accessible to practice.

For the practitioners, essentially, we want them to have the opportunity to read research in a way that's framed appropriately for practice, as opposed to most of your scholarly research, which, in a real sense, is targeted toward the reviewers and editors. Because those are the people who are going to make the decision as to whether or not the article gets published.

There's been very little research done on whether the ideas in these articles are going to diffuse to practice or not. I think in finance, they might be able to make a case that some of their academic concepts diffuse to practice. But in other fields, it's almost negligible. So we're trying to create a pathway to practice. And for students, if an article is suitable for reading by practice, it would also be suitable for students in class who would take the article and basically use it as a resource. Just as when I was doing my MBA, we were given quite a few *Harvard Business Review* articles to read, because they were written in a way that was not so scholarly that it impeded the understanding of someone whose principal interest is working in business, as opposed to researching business.

What characteristics in a submission are your reviewers looking for?

Clarity and quality of evidence are the things that we're most looking for. However, we are not particularly concerned about some things that a traditional journal would be concerned about. For instance, a traditional journal might be very concerned with the submission filling a hole or a gap in the literature. That's what we tell our PhD students and junior faculty to focus on, you know. Find that gap, and write an article that fits in the gap. Whereas, for the *MUMA Business Review* and the *MUMA Case Review* and these other journals, we couldn't care less whether there's a gap. The question is, is it telling an interesting story? At the end of it, has it communicated something to the reader that they did not already know? We don't want the methodology associated with creating the article to overwhelm the message of the article, which happens a tremendous amount of the time with your more academic articles. We would like our articles to have a point, we would like it to be written clearly, and we would like to have the article based upon rigorous observation and rigorous research. And one of the things we do in the *MUMA Business Review* is [that] with each submission there is what we call a review or appendix. And the review or appendix is where you put all sorts of details about how the research was conducted, because the typical reader is not going to be that interested in those methodological details, but the reviewer might be because that way they can make an assessment as to whether the research was done rigorously. Then, when we publish the article we do not publish the reviewer appendix.

How do you foresee your journals evolving in the future?

Right now, the two MUMA journals are the ones I am actively working on. Ultimately, they are both approaching five years old, and at five years, we can potentially get them incorporated in some of the indexes. And if we can get them incorporated in some of the indexes, then there will be greater incentive for faculty to submit to them. So, I would like to see the number of submissions grow. I would like to see our readership develop, particularly for the *MUMA Business Review*. For the *MUMA Case Review*, nobody reads case studies except when they are assigned. So, I'd like to see our cases used in a more widespread way. But, again, I consider a case a success if I write it and use it in my own class. I'm delighted when other people use these cases, but as far as I'm concerned, a case has demonstrated its worth if I get a couple of really good class sessions out of it.

Do your journals tend to favor positivism versus interpretivism, or quantitative study versus qualitative? Why?

Honestly, when you think about it, most quantitative research is suited to answer extremely narrow questions and basically boils down to a series of small hypothesis tasks. If you think about that in an information science type of way: if you've got four hypothesis tests, you can communicate that with four bits of information. So the contribution to knowledge of quantitative research, particularly the knowledge of the researcher, is fairly small.

On the other hand, if you do qualitative research, then you can acquire a much broader set of insights. And I am very big on the question of "what does the researcher learn in the process of conducting the research" as opposed to "how much does the publication inform the audience?" I mean, ideally, I'd like to see the publication inform the audience, and that's sort of what we're hoping for. But qualitative research has a much greater potential of informing the researcher. And since a lot of the work we're doing in the DBA program is practitioner scholarship where people are applying research findings to their own organization, I feel like there's a much greater potential that they'll learn in the research process way beyond what they'd learn in the quantitative study.

When you do a quantitative study, one of the main things you learn is how to do a quantitative study and how to use statistics to answer a narrow set of questions. And, of course, there are lots of different statistical tests that you can run, and there's considerable learning, but what you're learning about is how to do research. In a qualitative and interpretive

research project, you're actually learning about the domain. As opposed to being limited to a few bits of information coming out of a hypothesis test.

How did you become interested in informing science?

I became interested in it when they were willing to consider a rather bizarre paper that I wrote. It had won the distinguished paper award for the innovative education track at the DSI conference, but no one wanted to publish it because it was a nightmare sequence.

Look at the question of *what would happen if I took one of my course designs and presented it to an IRB for approval?* When I submitted that paper, and I contacted the editor and asked, "would you be interested in that," Eli Cohen suggested I come to the conference in Flagstaff. And in attending that conference, I started to realize that interdisciplinary, transdisciplinary research could be an area I'm very comfortable with because I like to try to take findings from one area and synthesize them and apply them to other areas.

So it seemed to be a home where I could do a lot of conceptual thinking and writing because in a transdisciplinary research area, it's less about going into the lab and discovering new findings, and it's more about trying to synthesize findings that you might not have otherwise considered and apply them to informing processes.

So the transdisciplinary research approach in informing science was one that was very attractive to me, and, honestly, most of the people in informing science didn't even know what informing science was. It has, in my own way, allowed me to become a kind of a research entrepreneur, helping really define a new area of research. And you know there are really very few other areas of research I could have otherwise done that.

What do you like the most and the least about being an Editor?

I would say I look at my editor responsibilities as a pure service responsibility. I am getting so tired of evaluating other people's work. Because it is so very important to them, and it's exhausting constantly providing feedback especially when the feedback isn't "great job." The feedback is "the areas of improvement require the following." And since I also do that in most of the courses I teach, you know, I'm finding that probably 50-60% of my professional time is spent giving folks feedback. And editing adds to that.

On the other hand, I very much like the fact that I'm doing this service by virtue of the editing. And so I feel like I really am helping people learn, even though it's sometimes very frustrating as an editor, because sometimes you have to deliver bad news. Delivering bad news and criticism is what I hate most, but making a service contribution to the discipline is what I like most about it.

Can you give me one example where an article published in your journals may have made a measurable impact in the broader world?

The first article I published in *Informing Faculty* is a case study of a course that I'd taught. And I have used that case study a lot, both to introduce faculty to the case method and to introduce students to the case method. So that one case has provided a tremendous amount of value to me.

In terms of JITE: DC, the series of cases that I did in Vietnam had a major impact on scholarship at a particular Vietnamese university. And, in the course of writing a number of cases that were published in JITE: DC, I've had a significant impact on our undergraduate curriculum and also on the organizations about whom I wrote the cases.

It's impossible to write a discussion case about an organization without having an impact on that organization's decision-making. Whether it was a positive or negative impact is a little

bit harder to tell because you can't rewind the clock and see what would have happened without that intervention. But I hope it is positive.

In terms of the *MUMA Business Review*, the most significant impact has been on the researchers who were writing for it because it provides them an incentive for taking their research to the next level.

In other words, the peer-review process is important for developing researchers. And if you don't have an outlet where they can get those kinds of reviews, then all of a sudden, you're not going to get that chance to develop.

So I would say that the development of authors is probably the biggest contribution of the *MUMA Business Review*. And then, I'd love to say, "well, basically, all these things have changed as a result of our articles," but even if they have changed, I wouldn't necessarily know about them. But I do know that the authors have developed in the process.

International Journal of Community Development and Management Studies – http://IJCDMS.org

The *International Journal of Community Development and Management Studies* (IJCDMS) (2019) is a platform for the discussion of managerial, entrepreneurial, and informing approaches to challenges faced by diverse societies. The journal explores the impact of diversity within the context of rapidly changing socio-economic environments and seeks the engagement of minority communities in problem-solving.

All Published Articles Searchable Archive

The institute also provides an "all published articles" searchable archive at http://ISjournals.org as another distinct channel to make it easier for its clientele to receive the information relevant to them in a resonate way. This list is also designed to encourage search engines to produce search results for ISI published articles.

Conferences of the ISI

The ISI has put on numerous academic conferences since 2001. Cohen (2009a) identified that face-to-face communication helps foster trust and a sense of the community. Several of the journal Editors-in-chief the author interviewed for this paper credit the channel of conferences with being the catalyst that sparked their interest in informing science and the Institute.

Recent and upcoming conferences include the following:

- InSITE 2020 – Online
- InSITE 2019 – Jerusalem, Israel
- InSITE 2018 – La Verne, California
- InSITE 2017 – Ho Chi Minh, Vietnam
- InSITE 2016 – Vilnius, Lithuania
- InSITE 2015 – Tampa, Florida, USA
- InSITE 2014 – Wollongong, Australia
- E-Skills Conference 2014 – Cape Town, South Africa (in collaboration with The South African iKamva National e-Skills Institute)
- InSITE 2013 – Porto, Portugal
- InSITE 2012 – Montreal, Canada
- InSITE 2011 - Novi Sad, Serbia
- InSITE 2010 - Cassino, Italy

At these conferences, many papers are presented, and numerous discussion panels are held. The proceedings for each conference can be found online by visiting https//informingscience.org/Conferences.

As of 2019, InSITE conferences currently include the following tracks:

- Teaching Diverse Populations of Students
- "Fake News": Bias, Misinformation, Disinformation, Propaganda, and Fictitious Reporting of News
- Transdisciplinarity and Knowledge Across Sectors
- Case Method of Teaching
- Mentoring and Teaching Doctoral Students
- Teach IT: Teaching and Learning of IT
- Cyber Security
- Student Research: Masters and Doctoral Program Research in Progress
- Digital Excellence: Impact, Inclusion, and Imagination
- Information Science Research and Application
- Digitally Enhanced Learning and Teaching
- Informing Science Research and Application
- Digitally Augmented Research and Methods

Books and Other Publications

The *Informing Science Press* publishes books related to informing science areas of interest. Such books provide researchers with the opportunity to develop a theme in greater depth than is possible with an article or to bring together a collection of important articles relating to a common topic. As of 2019, the Informing Science Press had published over 50 books. Most of the books published by IS Press have been about IT Education and Instructional Technology related topics. However, IS Press has also published some books about informing science itself and books about education, e-learning, informing theory, and other areas.

Outreach Channels

Ironically, it may be that informing science gains the greatest credibility when it is mentioned in journals not dedicated to informing science, namely discipline-specific journals. This is a theme touched upon in Gill and Bhattacherjee (2009b). Those same authors also stated that academic research fails to engage information systems practitioners in business. Although the ISI may effectively engage academics from multiple disciplines, that does not necessarily translate into its research resonating with practitioners from different disciplines.

Academic outreach in channels outside the ISI may be the logical place to provide outreach value while simultaneously gaining third party credibility. We would define third party credibility as when someone other than your own members recognizes or mentions the work or philosophy of informing science. To use a metaphor, there is usually a different reaction if the owner of a restaurant says the food is good than if a third party food critic says it is good. The ISI needs some third party critics edifying its mission rather than just the members or channels within the ISI doing so. Fortunately, there is progress being made in these areas. Informing Science has been a central theme of two MISQ articles by Gill & Bhattacherjee (2009a, 2009c) and an ICIS panel (Myers et al., 2010). In 2011, an engineering symposium specifically examining informing science's application to engineering disciplines was organized by the *International Institute of Informatics and Systems*, an organization not affiliated with the ISI. As more non-ISI informing science conferences, panels, and articles become available, informing science's visibility and credibility will certainly grow.

Going beyond academic channels, some thought should be given to better engage professionals and win their participation as members of the Informing Science Institute or at least as practitioners aware of informing science approaches to building informing systems with practical applications.

CONCLUSIONS

To recap, the *Informing Science Institute* has published over 4,100 articles by over 4,500 authors from over 600 universities with impressive international participation. This accomplishment as a research outlet was achieved by using the philosophical principles and design guidelines of informing science to create the informing system that is the institute. In effect, the institute has effectively been "practicing" what it is "preaching."

One of the foremost informing science principles the ISI has employed addresses the need to inform its clients with rigor, relevance, and resonance. The ISI achieves relevance by publishing articles around a common theme: research that examines questions relating to informing. The ISI achieves rigor through a peer-review process led by experienced researchers committed to researchers mentoring researchers. The ISI achieves resonance by providing various communication channels that are already known to resonate among its clients, largely academic researchers. These channels include peer-reviewed academic journals and the repackaging of articles across ISI journals into books that examine specific themes and face-to-face international conferences and other outreach activities. ISI embraces an open-access model in which the journals do not charge to download published articles. Its books are made available online without charge through Google Books. In this way, ISI has done a particularly good job of achieving international participation in the research publication process, especially compared to many traditional academic journals affiliated with for-profit publishing entities. However, the other channels of the ISI also provide their own unique contribution to the informing system. Trust is always an issue with recipients of messages being willing to receive messages and can even be an issue with senders of messages being willing to send messages. ISI organizes conferences as a channel designed to facilitate trust, relationships, and participation among its members.

By following the principles of the informing science philosophy in creating its own informing system, the ISI has some notable success through "eating its own dog-food," to borrow a phrase from Microsoft. In the future, the ISI's goal must expand beyond its own membership, however. It must become a recognized and respected participant in existing informing systems that serve academia. Through such recognition, researchers can be rewarded (and certainly not punished) for choosing to adopt a transdisciplinary focus. Perhaps the best way to accomplish this is through publishing articles about informing science in traditional, discipline-specific journals, citing ISI articles about informing science while doing so.

Another area where the ISI may want to consider expanding is in non-academic clients, such as practitioners in business and government. The problem with academic research published in academic journals is that it can fall into the trap of becoming inward focusing. Particularly in the U.S., this has become the rule rather than the exception in many areas (Gill & Bhattercherjee, 2009b). Just being transdisciplinary does not protect its journals from such a tendency. As evidenced by the interviews with the Editors in Chiefs of the various ISI journals, there is a real danger that practice will be ignored if engagement is not actively sought. Perhaps in the future, the ISI could become transoccupational as well as transdisciplinary. After all, if disciplinary silos can cause research myopia, occupational silos can as well. At the end of the day, it is the researcher's job to create knowledge and solve problems. Should academia ignore the researchers in industry, and should the researchers in industry ignore the researchers in academia when trying to solve problems relating to informing? The answer is, "of course not." Both academia and practice face complex problems that require leveraging and combining multiple approaches. As a start, the ISI may want to increase the ratio of practitioner-focused articles in its current journals or even launch specialty journals specifically intended to resonate with practitioners.

Every challenge is a potential opportunity. So, the opportunities of the ISI for future growth, contribution, and improvement are myriad. The ISI has done a commendable job based on its founders' leadership and the work of its volunteer army. But, any virtue can be a vice if taken to an extreme. Many questions can be raised concerning the challenges of the future. Has the ISI done too good of a job in avoiding fund raising conflicts of interest? With slightly better infrastructure, outreach evangelist budgeting, and more aggressive marketing of itself and informing science, would informing science have more awareness and acceptance in academia? In an open access model with such large international participation, is there room for papers published that are not in English if qualified editors and reviewers can be found who are fluent in other major languages? Can the ISI use informing science and its experience to 'seed' other institutes dedicated to transdisciplinary research to attack complex problems not related to informing problems? Such problems are nonetheless complex and in need of informing systems.

In speculating about future opportunities, however, it is important to not forget the Informing Science Institute's extraordinary accomplishments in constructing an informing system to disseminate informing science principles to its large and growing clientele. Across every nearly conceivable dimension—the number of ISI members, conference attendance, international representation, the breadth of disciplines included, and the scope of publications produced—major advances have been made with virtually no external resources. These achievements provide clear evidence that the principles of mentorship, open access, and transdisciplinary perspective common to all ISI activities collectively constitute a powerful system for informing. As long as the informing science community's commitment to these principles remains steadfast, a continuing stream of contributions to knowledge and growing outside the acceptance of informing science seems inevitable.

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APPENDIX

DATA COLLECTION PROCESS FOR "THE INFORMING SCIENCE INSTITUTE: THE INFORMING SYSTEM OF A TRANSDISCIPLINE"

1. The research started by examining the existing cataloging database of ISI articles. The catalog had been updated to a certain date, and needed to be made current.
2. I then added new articles to the catalog list by going to www.iisit.org (Issues in Informing Science and Information Technology) to a spreadsheet list (articles_local) of Informing Science Institute (ISI) articles. ArticleFileName came from the URL of each individual ISI article on the informing science website.
3. I then updated authors from the new articles to the new list with author IDs assigned after the last author ID number in the original list provided.
4. Institution and department was initially the institution/department provided in an author's most recent publication in the ISI journals. School/College/Faculty was used interchangeably with department in many circumstances, since many institutions would only separate their sections down to School or College, or would describe similar organizational units as a faculty instead of as a department.
5. Authors without enough information for a complete entry were searched on Google, comparing name/picture/background information to ensure that the information found was pertaining to the author (also used to link articles to authors that used multiple names or had a name change.)
6. Departments for each institution were compared to ensure that they would be consistent.
7. Private consultants and developers were listed by their organization and job title, as were University personnel who did not belong to a single department (usually administrative personnel.)
8. Authors from the new articles were cross-referenced with the existing authors and their IDs, updating the author entries to the information provided in the IISIT articles
9. The initial article entries were a single entry with multiple author IDs linked to it.
10. Once the entries were complete, full author entries were added in place of the lone IDs. This created an entry for every instance of ArticleID and AuthorID combination.
11. We then removed duplicated entries in the original author lists and a few in the new IISIT list.
12. The errors/duplicates in the original list provided were due to the author names being based off a nickname (John instead of Jonathan, etc.), foreign names where a middle, last, or first name might be used interchangeably, or due to spaces and punctuation that had accidentally been added (assumed prior to a remove duplicates being done.)
13. Author country was added based on the author's listed institution. Author countries were listed under their ISO 3166-1 alpha-3 codes (three letter codes from the International Organization for Standardization.)
14. Citations counts for each articles was retrieved from Google Scholar searches for each article's title.
15. The remove duplicates function in Excel was used to create unique entries based on what field needed to be measured. (see examples).
16. Pivot charts were used to organize and count the information once the duplicates were removed.

17. Article country per year had to use all of the unique countries for each article. This meant that an article with two authors from the U.S. and an author from Brazil would contribute 1 U.S. and 1 Brazilian to the entries. The alternative would be splitting the article among the authors, which would not necessarily be any more helpful.
18. Pivot chart data was used to create histograms and pie charts for ISI.
19. Top 10 institutions/authors were made with pivot charts, with the resulting values copied and sorted.
20. I re-updated updated author data with data provided at the time of the articles. This sometimes left departments empty, which was filled based on later entries by the same author at the same institution, or based on other authors at the same institution. Author countries were redone based on the initial institution in the articles.
21. Institutions that were multiple campuses of the same University system (Multiple University of California locations, etc.) were consolidated into single institutions.
22. Data, charts and tables were redone/updated when revised. Data/Information for charts was limited to 2002-2019 in most cases. ISI was also split into each individual ISI journal to be included with the other journal data sets.

BIOGRAPHY

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