EDITOR'S COMMENTS

Writing a Virtuous Review I

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Peer review is pivotal to the efficacy of the scholarly publication process. It is highly consequential to the careers and morale of authors, to the quality and innovation of the work that journals publish, and to the intellectual base of a discipline. Over the years, *MISQ* and other journals have published editorials on various issues with the peer review process and approaches to address them (e.g., Berk et al. 2015; Lee 1995; Lepak 2009; Miller and Van de Ven 2015; Saunders 2005; Straub 2008).

A common thread through much of the discussion on peer review has been the idea that reviews need to be informative to editors in arriving at their decisions as well as constructive to authors regardless of the editorial decision (reject, revise, accept). I use this editorial to share some guidelines about how a reviewer can write a *virtuous* review—one that adds value to the editors, the reviewed work, the authors, and the reviewer. In advancing the perspective of a virtuous review, I draw on my experiences as editor, reviewer, and author; conversations with editors at *MISQ* and other journals, reviewers, and authors; and various articles on the subject. Although this editorial is directed at anyone invited to review for *MISQ*, it is likely to be particularly useful to scholars at early stages in the profession.

Role of the Reviewer—Advisor, Not Decision Maker

The role of a reviewer is to provide expert advice to inform the assessment of and recommendation made by the associate editor, and the decision that is made by the senior editor. At *MISQ*, the reviewer advises, the associate editor makes a recommendation to the senior editor on disposition of the manuscript, and the senior editor decides (see Table 1). As Campbell (1982) notes, "Reviewers act as consultants and advisers, but they do not make the decision" (p. 695). As such, reviewers for *MISQ* should refrain from stating their advice on the decision (accept, revise, reject, etc.) in their comments to the authors.

Table 1. Reviewers vis-à-vis Editors in the MISQ Editorial Process			
	Reviewer	Associate Editor	Senior Editor
Perspective	Individual based on expertise and experience	Holistic across reviews	Holistic across reviews and associate editor report
Focus	Contribution of the paper Major issues that affect publishability of work	Sensemaking of reviews Own assessment Revisability of paper within reasonable time and effort	 Sensemaking of reviews and associate editor report Own assessment Revisability of paper within reasonable time and effort
Value Added	Feedback based on expertise (domain, theory, method)Suggestions for improvement	Guidance Not vote-counting	Guidance Not vote-counting
Role	Advice	Recommend	Decide

Mindset of the Reviewer—Constructive, Not Destructive

In stepping into an advisory role in the editorial process, the mind set that a reviewer brings to the process (uncovering reasons to reject the paper versus helping the authors to strengthen their submission) influences how they execute their role and the nature of their advice. *MISQ*'s editors seek to publish papers that address important problems and issues related to information systems, are intellectually novel and of high quality, and are likely to have a significant impact.

However, to the extent that reviewers step into the process interpreting their assignment as findings reasons to reject the paper, they may end up delaying or, worse yet, thwarting the publication of a potentially high-impact paper. Clearly, quality is important and identifying issues with a submission is critical to the review process. However, adopting a constructive mindset results in approaching a paper with an eye toward the paper's potential rather than solely its flaws.

An issue that routinely comes up in *MISQ's* editorial board meetings and those of other journals on which I have served as an editor pertains to a culture of excessive reviewer negativity. Training in doctoral programs orients students to critique work that is published in top journals. Although such training is useful to develop a keen eye to spot issues and be critical of work, editorial processes work effectively when editors and reviewers do not slip into nitpicking and are able to apply judgment to discriminate the wheat from the chaff.

No paper is perfect—seeing the big picture and providing a holistic assessment entails not only enumerating issues with a paper but also applying judgment in weighing the pros and cons of the paper. A constructive mindset is instrumental in accomplishing this.

Why Review?

The Obligation to Review

The journal reviewing system is a very important public good—instrumental in the advancement of scholarship and its impact, and important for the careers of academics. It is predicated on the premise that scholars will volunteer to review and that authors will not free-ride. Over the years, I have heard a few (fortunately not many) colleagues remark that they will not review as they would rather allocate the time to work on their papers. This violates the norm of reciprocity that requires authors submitting a paper to a journal to review for that journal (and others). It is also unfair to those that do review and who have to disproportionally bear the costs of reviewing when authors free-ride. Participation in the peer review process is our professional obligation and avoids the stigma of being a "professional parasite" (Saunders 2005, p. iv). What is the expectation for reviewing? Author submissions at the MISQ are typically reviewed by two or three reviewers, an associate editor, and a senior editor—that is, by four or five scholars. As a result, we expect authors to review three papers for every paper that they submit or resubmit to MISQ.

Benefits of Reviewing

There are significant reputational, social, and intellectual benefits to reviewing. These include developing a professional reputation for diligence and quality of editorial work (which can lead to subsequent editorial appointments) and for citizenship behavior. Reviewing provides the opportunity for reviewers to develop professional relationships with editors who may serve as external reviewers for their promotion and tenure cases.

Reviewing also provides reviewers opportunities to see the most recent developments in the literature as well as in methodologies and theories, innovative research designs, and how different scholars approach the framing and formulation of their research. All of these provide a fertile ground for intellectual growth in the reviewer's own research and writing. And, reviewing provides an excellent basis of learning about the peer review process by getting to see up-close how others evaluate the same work and how authors, effectively or ineffectively, respond to issues raised and suggestions provided by reviewers and editors. In short, reviewing helps develop both one's reviewing and editorial skills as well as one's authorial and scholarship skills.

Accepting the Reviewer Invitation

Providing a Timely Response to the Invitation

When a reviewer is invited to review a manuscript, it is important that they respond to the review invitation immediately, ideally the same day. Although a delay of a few days in responding to a review invitation may not seem like a "big deal," such delays accumulate across a multistep review process with adverse impacts on cycle times and the careers of our colleagues. To support a culture of timeliness, we encourage reviewers to make a timely decision on accepting the review invitation and, importantly, a responsible commitment to provide a timely review.

Seeking Recusal or Clarification on Undertaking the Review

Reviewers should promptly contact the associate editor if they believe there are circumstances that may prevent them from rendering a fair and unbiased assessment of the work. These circumstances may include, among others, conflicts of interest, prejudice to the epistemology employed by the submission, or the reviewer's work competing with the submission.

Reviewers may sometimes also find that they are unable to complete a review anonymously—for example, because of the nature of discussions that they have had with authors about the paper, say at workshops or conferences, which would essentially reveal their identity as a reviewer (Berk et al. 2015). In this case, they should also alert the associate editor.

Other circumstances may warrant clarification from the editors. For example, a reviewer may have previously reviewed the paper at another journal. In this case, the reviewer should contact the editors and let them know. Sometimes the editors may still seek the reviewer's assessment on whether the paper has improved relative to the previous submission or the editors may want to seek a fresh set of eyes on the paper (Beck et al. 2015).

In sum, any time reviewers are in doubt about whether or not they should accept a reviewer invitation, they should ask the associate editor (who may escalate the question in the review hierarchy—associate editor to senior editor and senior editor to EIC). It is very important that the reviewers act promptly in contacting the associate editor, ideally the day they receive the reviewer invitation.

How to Write a Virtuous Review

In this section I offer some guidelines about preparing a virtuous review, which are summarized in Table 2.

State Your Expertise and Focus Your Review Accordingly

As a general-interest, big tent journal of the IS discipline, MISQ receives a diversity of submissions in terms of phenomena and problems, epistemological perspectives, theories, and methods. The diversity of submissions received at MISQ has been growing over the years. Individual papers may also combine variance and process models, theories at different levels, or methods. It is helpful to editors and authors to understand the expertise that reviewers apply to assess a paper. Reviewers can share in their reviews the aspects of the paper that fall within the purview of their expertise and those that do not (Lee 1995). For instance, they can state if their expertise positions them to effectively assess the contribution to a body of knowledge, the theoretical aspects, or particular methodological aspects. Reviewers should not comment extensively, or with confidence, about aspects of a paper that fall outside their expertise. They should make editors aware of those parts of the paper that are out of their expertise and that they are not assessing, lest silence is misinterpreted as a nod on these aspects. By stating their expertise and focusing the review on relevant aspects of the paper, the reviewer's advice is likely to play a more useful role both to editors and authors.

Table 2. Guidelines on Ho	w to Write a Virtuous Review
State your expertise and focus your review accordingly	 Communicate your expertise as it pertains to the paper (theory, method, analysis, domain); explicitly state which areas of the paper are outside your expertise Focus your assessment in areas of your expertise; do not comment extensively, or with confidence, on areas outside your expertise
Refrain from signal jamming—focus on issues that make or break the paper	 Focus your review on major issues that affect a paper's publishability Do not laundry list issues— discriminate between major issues that affect publishability, minor blemishes, and personal preferences about how the work could be done or presented that do not affect the paper's publishability
Substantiate claims and suggestions	 Provide compelling rationale for issues raised and suggestions made Do not make unsubstantiated comments (e.g., your hypotheses are not well justified, or you need to perform such and such additional test) or unsubstantiated assessments (e.g., your paper does not make a significant contribution) Adhere to the same standards of logic and evidence you expect from the authors
Detect and advocate for ambitious and intellectually novel work that may be impactful	 Do not assess novel and ambitious papers using an identical assessment framework that is applied to assess more conventional papers Provide an open-minded, thoughtful assessment on the intellectual contributions of the novel aspects of the work without dogmatically invoking a frame of reference of established paradigms or overstating the consequences of methodological blemishes
Preserve the voice of the authors - do not ghostwrite or impose personal preferences	 Do not hijack the paper and try to recast it to the paper you would like to write or the study you would like to conduct Base your evaluation on the authors' own framework (framing, perspective, reasoning strategy, analytical strategy) rather that imposing your own personal preferences Provide constructive suggestions and guidance but do not handcuff authors to a single path of addressing the issues raised
Do not send the authors on a wild goose chase	 Do not be whimsical in your requests—every request takes authors time and effort Think through why a requested change will add value to the paper and influence its publishability and provide a strong rationale for the requested change
Avoid Janus-faced assessments	Do not provide a private assessment to the editors that is contradictory to the assessment you share with the authors
Be diligent to avoid springing avoidable surprises in later rounds in the process	Do not be a careless first round reviewer who misses major issues and springs them as a surprise to authors and editors in the second round
Provide timely reviews	 Make every effort to provide a good quality review by the review deadline Budget time in your schedule when you accept the review invitation
Write the review you would want to receive	Do unto others as you would have them do unto you
Additional Considerations for	Reviewing Revisions
Review a revision conditional on the editorial guidance	Be respectful of the process when editors do not agree with a point you make or guide the authors along a different path
Provide authors leeway on how they address issues	Be respectful of the authors' choices when they effectively address an issue but not in the manner suggested by you
Maintain professionalism in the face of disagreement	Be open-minded, not a dogmatic ideologue, when editors or authors disagree with your concerns or do not follow your suggestions Maintain a professional demeanor

Refrain from Signal Jamming—Focus on Issues That Make or Break the Paper

Sometimes reviewers write pages and pages of reviews with the primary objective of impressing editors about how smart and dedicated they are (Hirshleifer 2015). Long-winded reports that are ambiguous, harp on minor issues making them sound like major issues, or stage a laundry list of issues without discriminating among fatal flaws, major issues, and minor blemishes are classic examples of signal jamming. Editors (and authors) have to then try to make sense of what the reviewer may have meant

and of the relative priority of the issues to be addressed. Listing all possible concerns with a paper without discriminating between major issues and issues that do not affect the publishability of the paper does little to help the editorial process, and may actually cause unnecessary effort and delay in revising the paper. A high signal review will identify the strengths of the work and will differentiate between concerns that are fatal and render the work unpublishable and those that are likely to be addressable or are limitations.

Reviewers expect coherence from authors in their submissions. In turn, authors and editors have the expectation that reviewers will provide coherent reviews that do not conflate major issues with minor blemishes.

Substantiate Claims and Suggestions

To the extent a reviewer's claims and suggestions are anchored in strong rationale and evidence rather than being unsubstantiated, the review is likely to be useful to the editors and authors.

Sometimes reviewers make unsubstantiated claims about issues with a paper, for example, "the findings are not interesting," "the theory is misaligned with the question," or "the research design is flawed." Whether or not an issue involves subjective assessment, the claim should be accompanied by rationale and evidence. In writing a review, it is incumbent upon the reviewers to adhere to the same standards of logic and evidence they expect from the authors (Harrison 2002) and provide the rationale or appropriate citations to back up their claims. This increases the face validity of the review and provides transparency as to how an assessment has been reached. When reviewers do not provide such rationale or evidence, editors and authors may wonder if the comments reflect poorly expressed, but valid, concerns or whimsical, easy-to-write negative comments to support an overall negative assessment. This increases the difficultly for editors to use the review in making a holistic assessment of the paper and results in authors' frustration or even perception of an unfair review process.

One area where unsubstantiated assessments are particularly common is a paper's contribution (e.g., "the paper does not make a significant contribution"). Given the pivotal role of significance of scholarly contribution in determining the publishability of work at *MISQ* and the inherently subjective nature of this assessment, reviewers can constructively use their advisory capacity in the editorial process to make a case as to why a paper makes, or can make, a significant contribution. When the reviewer claims that a paper does not make a significant contribution, they should explain why they arrived at this assessment.

Similarly, reviewers sometimes enumerate, without providing a rationale, changes that authors need to make, for example, more literature to be integrated, additional experiments to be executed, additional data to be collected, or a battery of additional tests to be conducted. Here again, reviewers should be convincing as to why they are recommending specific changes and how these changes will add value to the paper.

Detect and Advocate for Ambitious and Intellectually Novel Work That May Be Impactful

Through the history of science we have witnessed a tension of creativity and originality with accuracy and reliability (Polanyi 1958). Reviewers are often conservative with innovation and are more comfortable in supporting high quality work conducted within the framework of established paradigms (Horrobin 1990). In fact, they frequently become negatively disposed to work just because it diverges from existing paradigms (Starbuck 2003). Reviewers also have a tendency to focus excessively on methodological issues at the expense of intellectual novelty that can be impactful, leading to Type II errors in editorial processes (Straub 2008). Numerous highly impactful papers that deviated from established paradigms to push the frontiers of knowledge were initially held back by the peer review process. As one example, Akerlof's seminal paper on the economics of information, "The Market for 'Lemons': Quality, Uncertainty and the Market Mechanism," was rejected by three top journals (*American Economic Review, Journal of Political Economy*, and *Review of Economic Studies*) before finally being accepted by the *Quarterly Journal of Economics* (Gans and Shepherd 1994).

Reviewers and editors do not want to be known for holding back a great paper that is pushing the frontiers of knowledge. An ambitious paper that takes on big problems and issues or breaks new intellectual ground is likely to be less buttoned down than a more conventional paper. Such novel and ambitious papers should not be assessed using an identical assessment framework that is applied to assess more conventional papers.

Reviewers can make valuable contributions to MISQ's editorial objectives by providing an open-minded, thoughtful assessment on the intellectual contributions of the novel aspects of the work without dogmatically invoking a frame of reference of established paradigms or overstating the consequences of methodological blemishes. Quality, methodological and otherwise, is clearly still important but should be considered as part of a holistic and open-minded assessment of the work.

Preserve the Voice of the Authors—Do Not Ghostwrite or Impose Personal Preferences

Reviewers need to execute their role without slipping into a coauthor role, ghostwriting the paper, or imposing personal preferences that do not affect the publishability of the paper. They should not try to hijack a paper and recast it into a study they would like to do or a paper that they would like to write. Instead, reviewers should base their evaluations on the authors' own framework (framing, perspective, reasoning strategy, analytical strategy) rather than imposing their own preferred framework or perspective (Miller and Van de Ven 2015) or personal pet peeves.

There is naturally some tension between preserving the voice of the author and being a constructive reviewer who not only raises issues but also provides suggestions and guidance on how to address them. However, the idea of suggestions is not to handcuff authors to a single path; the authors may have alternative and equally effective ways to address issues. Reviewers should remain open-minded and not be offended if an author chooses an alternative approach over their suggestion. Eventually, it is the author's prerogative on the direction that they take for their paper.

Do Not Send the Authors on a Wild Goose Chase

There are costs in time and effort to the authors for changes that a reviewer requests. It is important a reviewer not be whimsical in wanting to see things done, be it a never-ending list of robustness tests, or integration of more and more literature (or worse yet, literature streams), or collecting of additional data or conducting additional experiments. There must be a strong rationale for requested changes as to why they are needed (i.e., how do they affect the publishability of the paper; are they essential to the paper's core contribution) and how they will add value to the paper, rather than vague claims that the suggested changes will make the paper better (Miller and Van de Ven 2015).

Avoid Janus-Faced Assessments

Some reviewers write a positive assessment of the work in their comments to the authors and then turn around and provide a negative assessment in their private comments to the editors. This is extremely frustrating for editors as it places them in the difficult position of having to reconcile the discrepancy in their reports to the authors. Although additional information can be provided to editors through private comments, the assessment of the work communicated to authors and editors should be consistent.

Be Diligent to Avoid Springing Avoidable Surprises in Later Rounds in the Process

It is costly and frustrating for authors and editors when reviewers botch the first round of the review by not identifying major issues due to their carelessness and then raise these issues in the second round. Diligently identifying the major issues in the initial submission that will need to be addressed to make the work publishable is critical to the editorial process and is the hallmark of a strong reviewer. It sets the direction of the revision and saves avoidable surprises in subsequent rounds.

Provide Timely Reviews

Delayed review processes can have detrimental effects on the careers of colleagues and are frustrating for all parties involved in a review process. At *MISQ*, reviewers are expected to provide their assessments in three weeks. A good strategy is, when accepting the review invitation, to schedule time on one's calendar on when to do the review within the time frame. If it is scheduled, it is less likely that the reviewer will procrastinate and be late.

Write the Review You Would Want to Receive

Finally in writing a virtuous review, it is helpful to put ourselves in the shoes of the authors. As a reviewer, write the review that you would like to receive if you were the author—one that is timely, fair, thoughtful and internally consistent, clear on the issues and their rationale, constructive in improving the work, respectful of the authors' voice, and professional in tone.

Virtuous Reviewing of Revisions—Additional Considerations

Although the guidelines discussed in the previous section also apply to reviewing a revision, some additional considerations are relevant for revisions.

Review a Revision Conditional on the Editorial Guidance

Reviewers provide their individual assessments without visibility to the assessments of other reviewers in a given round of the process. However, part of the value created by editors is through their holistic sensemaking of reviewers' assessments. In conducting such a holistic assessment, the editor may depart from the suggestion of a reviewer as the editor, in envisioning a path forward for the paper, is balancing the varied (and potentially conflicting) inputs of reviewers who differ in the expertise, experience, focus, and diligence that they bring to a review. It is, therefore, important for reviewers to evaluate the revision conditional on the guidance that was provided by the editors.

Provide Authors Leeway on How They Address Issues

A reviewer should be open to how authors have addressed their concerns and suggestions. Although reviewers are selected because of their expertise in relation to a paper, the authors may have been working on the project for years and may have significant expertise in areas of the paper (Lepak 2009). They may have good reasons for addressing a reviewer's concern differently than suggested by the reviewer or for not addressing the issue. In being open to differing perspectives on an issue or why the authors deviated from the suggestions of the reviewer, the reviewer approaches the revision as an open-minded scholar and not a dogmatic ideologue.

Maintain Professionalism in the Face of Disagreement

Sometimes a reviewer may take the choices made by authors and editors, or the comments made by other reviewers, personally and may even react with overt or passive aggression. Some reviewers have dogmatically dug in their heels to try and hold back a paper only because their suggestion or concern was not incorporated in the editors' guidance and authors' revisions. There have also been instances, fortunately rare, where a reviewer has refused to participate in subsequent rounds of the review process just because the editors' guidance to the authors did not include one or more issues that the reviewer deemed major. Discrepancy between a reviewer's assessment and guidance of editors is not personal (Lepak 2009). Rather, it stems from the nature of the editorial process and the different roles of editors and reviewers. Maintaining a professional demeanor when this occurs is important to effective editorial processes.

What to Include in a Review

I do not wish to make the issue of what to include in a review formulaic as reviewers differ in expertise, different types of manuscripts will warrant different types of assessments, and editors may have specific requests on the areas of assessment they seek from a reviewer. But, in general, here are the key aspects that are useful to include in a review:

- Statement of your expertise and the aspects of the work that you assessed or did not.
- Your succinct three to five sentence summary of the work.

- Assessment of the contributions, current and potential, and the rationale for the assessment.
- Assessment of the key strengths of the work.
- The major issues, differentiating between issues that are fatal, showstoppers but not necessarily fatal, minor, and your preferences; where possible, provide suggestions on how the issues may be addressed; group and consolidate your comments into coherent themes (e.g., concerns with theoretical development, concerns with measurement) rather than merely providing a list of issues or a page-by-page critique.
- Holistic assessment of the work given the pros and cons.

You should not include your advice to the editors on the decision (accept, revise, reject) in your written comments to the authors.

Concluding Remarks

A journal is known for the quality and impact of the papers it publishes. *MISQ's* trifecta vision is to publish impactful work; process a range of submissions that are diverse in problems, perspectives, theories, methods, and stakeholders; and execute effective editorial processes with speed. Achieving *MISQ's* trifecta vision requires highly effective editorial processes that depend on the expert assessments of reviewers. Through virtuous reviewing, reviewers can contribute to the ability of *MISQ's* editorial process to spot and help authors improve impactful work, to process diversity of work, and to execute with speed.

On behalf of our senior editors and associate editors, I would like to express sincere gratitude to all those who review for *MISQ*. For those who have not reviewed for *MISQ* and are interested in doing so, please contact the *MISQ* associate editors who are closely aligned with your areas of expertise and let them know of your interest to serve as a reviewer. You may also create a *MISQ* ScholarOne user account (at https://mc.manuscriptcentral.com/misq) where you can indicate your areas of expertise.

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