

PEER REVIEWED PAPERS, THE SAE AND COLLISION MAGAZINE MUTUALLY EXCLUSIVE CONCEPTS?

BY W. R. RUSTY HAIGHT

The recent suspension of the Accident Investigation and Reconstruction Practices Committee (AIRP) by the Society of Automotive Engineers (see also the letter from the Editor in this issue) ignited discussions regarding the future of papers at the SAE meetings (specifically the next International Congress) and then spilled over to the issue of articles and papers in Collision and whether or not they're "peer reviewed." To some, these might seem to be two separate issues, to me, I see they're really intertwined.

When the AIRP was suspended, the first public discussion wasn't focused on "how can we get out from under the suspension and rebuild the AIRP?" rather it was "with the AIRP suspended, where are we going to publish our papers at SAE so that they're still "peer reviewed"?" While paraphrased here, the implication and misunderstanding was that it was the AIRP who/which was "responsible" for promulgating the crash reconstruction technical papers within SAE when, actually, the SAE "...Land & Sea Group oversees the technical content provided in all of the ground vehicle-related conferences that SAE offers..." (From an email by Colette Wright, Manager, SAE Automotive Technical Programs). For years, this has been the case; however, the representation of the papers has been somewhat less clear (perhaps less straightforward is a better way to put it) which has demonstrably lead to the resulting confusion.

The technical sessions at SAE meetings where the papers were presented (particularly at the International Congress) were (1) organized by well known, members of the AIRP and it was (2) those same members who were also identified with "task forces" (or similarly named sub groups) within the AIRP and (3) virtually all those reviewing papers were those same active members of the AIRP. The "connection" between SAE (Land and Sea Group) published papers and the AIRP - although technically in error - was apparent to even the most casual observer and, as a result, those published could (and have) claimed that they had papers "reviewed by the AIRP and published by the SAE's AIRP." As plainly incorrect as that statement is, by way of perception given outward appearances, that it was an easy connection to claim and a connection even those otherwise actively involved in the AIRP made by virtue of the overlapping activities of the individuals.

So then, what's the "benefit" of having a paper published by the SAE? Until late, one could claim such paper was "peer reviewed by the SAE AIRP;" however, I would argue that such an assertion is, at best, one made in name only and, in practical application, a meaningless distinction. Adding that the "AIRP reviewed it" was a misrepresentation but one made often and never questioned for the reasons previously stated.

To further this discussion, I think we have to ask: what is "peer review" and what is it "for?" While I stand ready to discuss

differences in semantics or develop that part of the discussion further, there has to be a starting place, so, for the purposes of this narrative, I'll set the initial ground rules. (If one is to clearly discuss something, conventions have to be set.) In that regard then, I will hold, for purposes of this narrative, that "peer review" is designed (and that's an important word here), as I've seen it summed up, to be: "the evaluation by fellow specialists of research that someone has done in order to assess its suitability for publication or further development."

Suitability for publication

To me, that's the key here. What's suitable for publication? To what audience? For what ultimate purpose?

On the one hand, I will hold that what one sees as "suitable" another may not. Here, I think is the flaw in peer review. By way of analogy, if Galileo, da Vinci or Newton had been subject to AIRP-style peer review conducted by the church, it (the church) would have rejected ALL of their writings which, given the orthodoxy of the AIRP, is a pretty apt analogy. In that example, the church was deciding, based on an established orthodoxy what was suitable for publication.

Moreover, the truth is that calling something "peer reviewed" simply does not make it somehow "more worthy" than another article or document particularly when the process fails to eliminate reviewer bias and THAT has been a long standing complaint as it relates to that "process" at SAE (particularly with the overt connection to the as established AIRP). For years, the SAE with the AIRP connection has been a textbook example of elitism, a lack of anonymity of the reviewer OR author highlighted by jealousies and efforts at a competitive advantage (no doubt something that figured into the HQ letter's description of the make up of the committee). In practice, in this context and often elsewhere, peer review demonstrably fails to weed out fraudulent or flawed research and it cannot guarantee either the truthfulness or the validity of the work particularly when the focus is NOT on a reviewer as "someone who had an understanding of the topic" and the review is instead on methodology or the maintenance of an established orthodoxy.

"Suitable for publication" took on, within SAE as it related to crash reconstruction papers and as shepherded by members of the AIRP, a mantle of publishing almost as though it were some sort of a reward for being part of the AIRP team. The paper's actual worth (suitability) wasn't as often so much the focus as it was "who was the author and would it be good resume fodder?"

Publishing with SAE has been for too many for too long nothing more than an opportunity for resume enhancement. The AIRP has, as it was once described, been a "society of professionals:" but, in my opinion, became a demonstrably inef-

fective social club while not designed to, surely acting almost exclusively to enhance individual credentials and give some legitimacy to the "members" and session organizers whom now no longer have the apparent legitimacy of an SAE committee behind them inasmuch as papers can still be published by the Land and Sea Group.

Which then brings us to Collision. When there was first talk of creating a new publication, there was a discussion of implementing a "peer review" process on a couple of levels. On one hand, well meaning, qualified individuals volunteered to act as reviewers and some papers were tentatively "reviewed" early on. Then we ran into the notion of "suitability for publication" and the underlying idea that Collision is a regular periodical, not a once a year opportunity to publish a paper without the clear and direct opportunity for followup dissenting opinion or position and, frankly, the idea that we're running a magazine: a vehicle to get information out, and like the work or not (and there was some I didn't like) getting it out there was better than stifling it in the larger scheme of things.

Looking at publication deadlines and not wanting to fall into the trap of being one or two years behind in publication dates waiting for reviews, changes and resubmissions, we opted for an approach that embodied the idea that "almost everything is "suitable" for publication" and we'll openly and actively welcome opposing views and provide the opportunity for someone to write a rebuttal or critique of a previously published piece. The idea is/was that as long as the piece was coherent and topical - about a reconstruction related topic - why not give it the widest audience and then let the community review and respond.

That policy remains in effect today. We could print an issue of the responses, critiques and reviews we've received on previously published articles; however, it would be a short issue with a lot of blank pages. While there are many who would decry content in Collision, none have been bold enough to counter it. While there are some who would suggest that if you "fail at SAE (you can) publish in Collision" which ignorantly assumes the SAE has some corner on the market or sets some actual standard on what is and is not "suitable for publication." I contend it simply does not and anytime cronyism undermines an otherwise potentially meaningful process, it makes the process essentially meaningless.

On the other hand, we offered, to Collision's premier industry partner and the organization that was instrumental in starting Collision - NAPARS - the opportunity to establish a peer review process. We have long made the offer that papers or articles submitted by an author to NAPARS for review could be highlighted as "reviewed" in each issue but no one there's ever taken us up on that offer.

In an attempt to level the playing field, we'd do something else different than the way it was done at SAE, our proposal was to establish a NAPARS backed review group to draw from, run by NAPARS at their Board's pleasure. For the definition of "peer," I'd recommend only those who have completed the ACTAR Accreditation but that's just a recommendation so that we can set a certain common experience level to call a "peer." I would suggest NAPARS could ask for volunteers from the NAPARS membership, explain the requirements and then ask for their areas of expertise (i.e.: pedestrians, CDR, momentum, drag sleds...whatever it is) or areas they're interested in reviewing papers on and their qualifications in that area.

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Then, when a paper comes in, the NAPARS coordinator would randomize the list by expertise/interest and randomly pick reviewers. If we get, say, 10 people willing to do reviews in a certain category, depending on the number of papers submitted, they might have to look at no more than one per year, maybe two. For the volunteers, it's not an onerous commitment that way and for the author, it means he's unlikely to find someone whom he deals with professionally as his reviewer.

Blind reviews in this business are tough. I know that if I see certain cars in a photo or certain instruments, I'm going to have an idea of who is doing the work. Admittedly not everyone will have that level of familiarity but that might be addressed either by way of a question to the reviewer about whether or not they recognize the author from the work and are willing to recuse themselves if they do.

Collision editorial staff, myself included, would act only as editorial review beyond that. We'll handle the formatting for the magazine and where there's a rejection, we can (not "will") offer the author an UNreviewed spot in Collision. If there's an appeal on an issue, I should think it would go to the NAPARS coordinator first then us (where we can again offer the UNreviewed publication option. Normal journals (i.e.: JAMA) have both peer review and editorial review. I think that is appropriate here and if the NAPARS coordinator, and Collision staff recuse ourselves from doing the actual reviews, that might work to deflect later suggestions of cronyism. (Notably no such option exists at SAE thus limiting the distribution of work that doesn't meet the presumption of acceptance within that smaller group formerly representative of the AIRP membership.)

I'm in favor of a fair review process of work which SHOULD be subject to peer review not, as is far too much the case at SAE, "reviewed" for the sake of being able to say it was reviewed when there really is no new ground covered. (Honestly, I see few things in AR these days meeting that threshold but I'm willing to print almost anything a NAPARS sponsored review committee would see fit to review and pass on as such.) At the same time, I stand by the position that any reasonably related information, something someone in the field might find useful should get the widest possible distribution.

So, are the SAE, Collision and the concept of peer review mutually exclusive concepts? I don't think so. I think there's room for a reasoned and realistic review process of work that needs to be reviewed but I also believe that giving the widest distribution to relevant information which can always be countered - just like an SAE paper can be (and has been) - is the more responsible way to go in the larger sense.

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This issue of Collision features the most detailed and in-depth analysis of Hyundai and Kia crash data published to date. The extensive review of the functionality of the Hyundai's "ECR Tool" application of crash tests and real-world examples is the focus of the primary feature story in the Fall issue of Collision.

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