

Working With Science Information Specialists

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“Pay no attention to the man behind the curtain,” booms the ominous voice of the all-powerful Oz, wizard of the Emerald City. Dorothy’s inquisitive pet has pulled aside the cloth, unveiling the sideshow charlatan whose knobs, levers, belching fire, and smoke have bamboozled the citizenry into blissful and idyllic security.

As an adult, every time I’ve watched that scene from Victor Fleming’s 1939 classic film, *The Wizard of Oz*, I’ve been struck by its parallel to the role public information officers play in the communication of research to the masses. Not the charlatan part, to be sure, but the idea that there is an unseen player in the process who is essential to its success. That’s where the linkage resides in my mind.

Most people gleefully maintain an infantile belief in the machinery by which research findings routinely flow out among the masses. They envision a “eureka moment” on the part of a researcher, after which that new knowledge osmotically wafts from laboratory into the populace. Comforting though that might be, I’ve never seen it happen in real life in more than three decades of covering research. In truth, this middleman—this

bridge between scholars and the public—is the oft-ignored figure at most research institutions who is most responsible for the transfer of scientific knowledge.

What follows is a look into the process, the people, and the problems surrounding the interaction of behavioral and social scientists and the news media, as well as the bridge that science information specialists become in linking the two. Scholars who’ve been interviewed before may see this as old hat and be tempted to skip this offering. I urge them not to since most researchers I have encountered in my 33 years of covering science consistently fail to “study” the media and how they inform the public. Younger scholars who’ve never faced a reporter should pay close attention. Explaining one’s work before the unblinking eye of a television camera, a radio reporter’s microphone, or the edgy questions of a newspaper journalist is guaranteed to cause a weakening of the knees. Navigating this strange and unfamiliar territory has abundant rewards to the scholar, but like any other discipline, it takes work and study to lead one to knowledge. Consider this a handy primer to keep you safe.

WHO ARE THESE PEOPLE?

Their profession bears many names: public information, public relations, public affairs, communications, science communications, outreach, and even marketing, in some cases. They can work at universities and colleges, at federal agencies or foundations, in businesses and industry, and various other venues. And while the names can denote significantly different approaches, philosophies, and tactics, the core similarity rests with their role in translating research findings and presenting them in a context appealing to varying audiences. Without these practitioners, most research advances would remain hidden inside academic disciplines forever. And yet few researchers are ever instructed to seek out these *aides de camp* in the ongoing battle for academic recognition by the news media and the public.

In many cases, these people are former reporters or editors who have had experience working as daily journalists. In other circumstances, they may be graduates of public relations programs at journalism schools with a goal of best representing the institution they work for. Still others—currently a minority—have come through specialized science writing programs that focused intently on the different challenges that reporting on research demands. In all cases, they tend to have a strong knowledge of the needs, behaviors, values, and stimuli that guide working journalists to report on science.

Just as they come from differing backgrounds, the jobs they hold may also differ widely. Some will work for an institution's public relations or public affairs office and be specifically assigned to certain "beats"—life sciences or clinical sciences or physical sciences, for example. In these cases, they will provide communications support for an array of needs, not just research. Consequently, these individuals tend to be more generalists than specialists when it comes to

science writing. In other cases, they may be responsible only for reporting on research, leaving other communications/PR tasks to colleagues.

Likewise, their reporting line is a variable. Those in the public relations/public affairs offices are responsible first for representing the institution as a whole. Others may report through an office of research and therefore only attend to research interests. Still others may report to the heads of smaller units within an organization and subsequently have a narrower focus.

For behavioral and social science researchers, these distinctions can offer clues to how supportive they can expect these communicators to be. In the best situations, these professionals will acknowledge their own chain of command but will concentrate on the needs of the individual researcher. In their minds, the larger institution can take care of itself. When the needs of researchers are supported, the entire institution will benefit.

In previous chapters of this volume, other experts have focused on the mass media, both the similarities threading through various forms—newspapers, broadcast, magazines, and so on—and the distinctive differences characterizing each one, presenting both advantages and disadvantages for journalists and sources alike. But fundamentally, they all depend on a simple prerequisite—that is, that the information they disseminate be "news."

Even within the diverse field of journalism, people struggle with clear definitions of news. In many ways, an almost indistinct and amorphous mechanism sifts news from nonnews—we know it when we see it. Such sixth-sense analyses won't work for the rest of the world, however, and a better standard is needed. I've always argued that "news" is something that would be "new" to the readership, listenership, viewership, or audience to which it is directed. But that's not quite enough either. For something to be "news," it must be important as well, not

just important to the expert. For most others, a data point is not just important, it is essential, everyday.

News is the coin of the realm for mass media; therefore, it is not just out by science communicators, but a key point for academics truly reaching the lay public, but reaching the gatekeepers, the gatekeepers, to mine what is news, and how to get it to the public, is an attainable goal.

Another chapter of this volume discusses scientists using the Internet. Some researchers may avoid the news media and go directly to the public through their own Web sites (Chapter 14). That is, open to all researchers, a host of caveats and conditions. An individual Web site usually is a part of a larger organization. Therefore, that organization's policies and many organizations will have content on an individual's curriculum vitae (CV), and publications, and so on. The intent here is to highlight the importance of showing the people the organization does not do. The organization's Web sites are of researcher Web sites are unconstrained.

In these cases, the public relations officer (PIO) will probably be the researcher wants to excise. But if scholars want to work within institutional constraints, links to stories they have worked on, helping readers to see the science behind the studies.

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Others of this volume, other than on the mass media, both reading through various channels, broadcast, magazines, the distinctive differences between one, presenting both advantages for journalists but fundamentally, they all have a prerequisite—that is, that they disseminate be “news.” In a diverse field of journalism with clear definitions of roles, an almost indistinct mechanism sifts news from what we see it. Such a system won’t work for the rest of the century, and a better standard will always argued that a system that would be “new” to journalism, viewership, or it is directed. But that’s the challenge. For something to be as important as well, not

just important to the experts but valuable for most others, a data point that is enriching in some essential, everyday way, a context.

News is the coin of the realm with the mass media; therefore, it is the gold sought out by science communicators. And this is a key point for academics to remember: That truly reaching the lay public is often impossible, but reaching the gatekeepers who determine what is news, and how much of it flows to the public, is an attainable goal.

Another chapter of this book that covers scientists using the Internet mentions that some researchers may avoid the middleman of the news media and point their message directly to the public through Web sites (see Chapter 14). That is, of course, a choice open to all researchers, but with it comes a host of caveats and constraints. First, an individual Web site usually lacks the imprimatur of a larger organization and, therefore, that organization’s credibility. Also, many organizations will limit a researcher’s content on an individual Web site to a curriculum vitae (CV), a list of specialties and publications, and perhaps a picture. The intent here is to humanize the organization by showing the people behind it. What the organization does not want is hundreds of researcher Web sites doling out information unconstrained.

In these cases, the public information officer (PIO) will probably not be an ally if the researcher wants to exceed the institutional norm. But if scholars want to operate within institutional constraints, the PIOs can provide links to stories they have done on the scholar’s work, helping readers to better understand the science behind the studies.

My career has mostly been spent at large public research universities, but the rules that govern science communications on such campuses usually apply quite well to other venues. These locales are populated mainly by research faculty whose charge it is to both teach the next generation of scholars the best

science available at the time and also to create new science and discovery. The latter of those duties is the mine from which the science communicators seek nuggets and gems.

Most major research institutions have specific staff hired to explain and, in many cases publicize, that science. Those who do it well understand that theirs is a true balancing act. On one hand, it is critical to be precise and accurate, to convey exactly what a scientific advance actually is, without exaggeration and with all appropriate caveats. On the other hand, it has to be news, and that means a translation that flushes all jargon, downplays the caveats, and emphasizes the future potential importance of the work. Living up to both standards is no small feat, but both are essential in gaining and maintaining the respect of researcher and reporter alike.

HOW THE SYSTEM WORKS

The usual scenario goes something like this: Realizing his or her work has yielded important findings, the researcher(s) writes a paper and submits it to a prominent journal in the field. (The same holds true for major papers presented at national meetings as well.) Once the journal accepts the paper, the researcher usually pats himself or herself on the back and may perhaps inform the department chair before returning to the next phase of research.

And herein lies the problem. For effective communication of the science, someone must inform the science communicator.

In the best situations, the researcher contacts the PIO, explains that the paper was accepted, and offers to send a copy of the manuscript (or galleys, if available) to the PIO for a review to determine potential news value. If that is positive, an interview is set up, the conversation takes place, and a news release is drafted. At most institutions, the policy requires the researcher to review that release.

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Each of these scenarios played out at my institution, as have hundreds of others, leading us to constantly emphasize to researchers the inherent unpredictability of communicating their work to the news media. That leads more than a few to ask, "Why bother?" Answers abound. The public has a right to know. Science coverage is important for public policy. In many instances, findings can improve health or quality of life. And sharing the researchers' passion for wonder helps the public support science. All of these are true, but at the end of the day, researchers need to remember that an essential part of science is the sharing of knowledge.

GETTING DOWN TO BUSINESS

So far, we've discussed news, the media, types of PIOs, the process of releasing news, potential minefields, and justifications for science communications. It's time to dig deeper into the first essential step—the interaction between the PIO and researcher, how to enhance that dialogue, and what is reasonable to expect and why. In many ways, it can be like an adolescent's first dance—whom shall I ask, who leads, will I seem foolish, what if the music slows. . . .

Much of the success depends on the actual dynamics of this relationship: How do the players interact, how do they see their respective roles, how closely aligned are their individual goals, and do they see themselves as partners? This last point is potentially problematic. Researchers usually hold a reasonably prominent place in an organization. They tend to see others as members of their team, though lesser in stature. And those individuals not on their team quite often are seen as even more subservient. But scientists who view these science PIOs as support staff or functionaries risk offending the very same professionals who might help raise their research to public prominence.

As I explained above, in successful interactions, the researcher and PIO see each other as equals, experts in their respective fields who seek to combine their talents to reach a point unattainable to either working alone. It is the same logic governing scientific collaborations between disciplines. Unfortunately, it can quickly devolve into a power struggle over control of the message and specifics of the content. Many researchers, assured by their own editorial experience from publishing in journals, assume a mantle of expertise in communications as well as their own field. But if that were actually true, there would be no need for PIOs—and clearly, the numbers of these individuals at research institutions have been growing rapidly for the past decade.

The PIO's main task is to translate the researcher's discoveries into a language readily understandable to the public and to the journalists who serve it. But that's not all. They also must present those discoveries in a way so that both public and journalist will easily recognize the significance of the work. It isn't enough for the scientist to affirm that the new work is important—the reader must be able to deduce that quickly from the story. How the story is actually told, what aspects are included or rejected, the context and potential—that is the purview of the PIO.

I used to shock students and researchers alike by saying that "success is a reporter getting the story 70% right." The researchers—most of them teaching faculty as well—quickly responded that 70% warranted a low C, if not a D, in their world. And students saw that benchmark as an easily attainable goal, not one requiring much diligence. Both groups were wrong. The public didn't sign up for a course; they didn't pay tuition and therefore have invested nothing but their curiosity into understanding such stories. Making them work too hard is a sure way to convince them to shift their reading from science to sports. Conversely, if interested in the topic or the news, they will devote whatever energy necessary to understanding the text.

WHAT DRIVES COMMUNICATION?

Motivation is the key in all effective communications. I've argued often that anything can be communicated assuming two criteria are met. First, you must be a good storyteller. And second, you must have an audience open to a good story. Applying that to research is actually easier than many might think. At its core, all research is a mystery story. What happened? How? Why? What did it affect? Who's to blame? How did it work? What would happen if...? People inherently love mysteries and will follow one for chapters on end. Science mystery stories in the news media—if told well—are much shorter and appealing to most readers, listeners, or viewers.

The PIO's task is to figure out, with each project he or she covers, what the elements of that mystery story actually are, how they should be presented and explained, and why the nameless masses of the public should care about that work. The researcher's role is to understand that this is a culture somewhat outside his or her own, with its own rules and paths, and through which the PIO should help guide the reader.

Consider the following as an example: Most academic papers, or presentations, for that matter, emulate the Bible's first chapter: "In the beginning, there was..." This Genesis-like approach brings the reader up to date with scholarship to understand the new discovery. Research stories—be they stories by the news media or research releases by institutions—solve the mystery at the beginning. They tell the reader what is new and why it is important. Then they backtrack to fill in the blanks. This approach ensures that the reader knows why he or she is investing the time to read the story.

If a researcher mandates his or her way of storytelling over that of the PIO, chances are readers will ignore the research altogether. In some cases, the PIO will simply refuse to do

the story and move on to interesting work done by the other researchers who are more understanding. Giving up that control is a difficult challenge for many researchers, but unless they do, they will never effectively work with skilled communicators.

TRANSLATING THE BEHAVIORAL AND SOCIAL SCIENCES

In the broad field of research communications, differences between disciplines are often minimal. While the scholarship varies between the physical sciences, the clinical sciences, the biological sciences, or the social sciences, the process is essentially the same.

It always begins with research questions. Hypotheses follow as does experimental design. Data are uncovered and analyzed until conclusions can be drawn, and from these, researchers can extrapolate their findings to a larger context. The basic scientific method applies regardless of discipline. But there are significant differences at play here, and for research communicators, the behavioral and social sciences often present the greatest challenges.

Young science writers see cosmology, molecular biology, and genetics as the most daunting fields they must cover. They see it that way based mainly on their own weaknesses in understanding the basics of such subjects. Quantum physics is deemed complex because it isn't perceived as a part of our day-to-day existence. Psychology, sociology, or anthropology, however, is all about our daily lives and therefore seems more familiar, less difficult. That is the stereotype the behavioral and social sciences have borne for decades—they are easier, not really science. Pity the science writers who believe that. They forget that the rules governing most of those "elder" sciences have long been written. Those governing the behavioral and social sciences are, in some cases, still works in progress.

Add to this problem public perception. Since social sciences involve concepts that are familiar and readily accessible, while the physical sciences are sometimes "foreign" to the general public, the former sciences, giving most researchers a more comfortable level with the subject, is often easier than with geology or astronomy.

In practice, this represents a problem in research communication. In the behavioral and social sciences, news media fail to recognize the value of such reports and assign feature writers to handle them. This means that the reporting is often less than ideal. At best, only vague scientific method and, at times, only a nod to how research is conducted.

The "Duh!" Effect

Moreover, there is a "Duh!" effect. Consider these examples from the behavioral and social sciences at my institution:

- When it comes to child development, young men and women often follow their mothers. Research shows that young women whose mothers were 57% more likely to report cohabitation than their mothers.
- Children of divorce often have behavioral problems when they split time between their parents' homes—but the positive effect of ongoing conflict by the parents is often overlooked. Without parental conflict, joint-custody arrangements often result in behavioral problems that are not seen in the custody of a single parent.
- Children who grow up with more siblings get along better with their classmates in kindergarten than do children with fewer siblings. New research shows that students who had at least one sibling were more likely to get along with their classmates.

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Add to this problem the dilemma of public perception. Since the behavioral and social sciences involve our daily lives, they are familiar and readily applicable. They lack the sometimes "foreign" status of the natural sciences, giving most readers a perceived comfort level with the issues that they don't feel with geology or astronomy.

In practice, this represents a huge obstacle in research communications surrounding the behavioral and social sciences. Often the news media fail to recognize the research as such and assign feature writers instead of science writers to handle the coverage. This means that the reporting is done by journalists, at best, only vaguely familiar with the scientific method and, at worst, totally oblivious about how research is done.

The "Duh!" Effect

Moreover, there is the "duh!" effect. Consider these examples from actual behavioral and social science research we reported at my institution:

- When it comes to living together with a man, daughters often follow the lead of their mothers. Research showed that young adult women whose mothers reported cohabitation were 57% more likely than other women to report cohabitation themselves.
- Children of divorced parents can benefit when they split time between their parents' homes—but the positive impact can be offset by ongoing conflict between the parents. Without parental conflict, children in physical joint-custody arrangements showed fewer behavioral problems than children under the custody of a single parent.
- Children who grow up with one or more siblings get along better with their classmates in kindergarten than do only children, new research shows. Teachers rated students who had at least one sibling as

better able to form and maintain friendships, get along with people who are different, comfort and help other children, express feelings in a positive way, and show sensitivity to the feelings of others.

Hearing about these studies for the first time, the average person on the street is likely to respond with a "Well, duh!" signifying the obvious nature of that information based on his or her own life experiences. Simply put, the findings seem to make perfectly good sense, so why would anyone waste their time doing research to discover that? Sadly, that response permeates the news media, reinforcing the perception that behavioral and social science is a poor sister to the other seemingly more sophisticated fields of research.

In actuality, the news media seldom realize that much of which is considered "common sense" has never been tested scientifically, and frankly, that portion that has undergone the scrutiny of researchers is often proved wrong or, at least, misunderstood. Reporters need to be reminded that behavioral and social science scholars have to apply solid scientific methods to these seemingly obvious questions if the field is ever to lose its perception of being a lesser science. And if the translation of those studies remains with scientifically naive feature writers, who knows where their stories will lead—thus the need for the scholar-science writer partnership.

Knowing that the "duh effect" might apply to their work, behavioral and social researchers should decide in advance how to head off that reaction, perhaps offering the reason why "people" believed something to be true and why their beliefs might be wrong or at least ill directed. The scholar who does this well demonstrates both to the reader and the news media that he or she retains the "common sense" of the masses and therefore deserves their attention.

It is a simple additional effort but one that will pay off enormously in communicating about the science.

Where Behavioral and Social Science Stories Are Born

As said before, most important behavioral and social science stories in the news media derive from reports in journals or presentations at major meetings. Both venues provide the end results of studies and the necessary “news hook” for reporters. Knowing that, good public information officers will monitor the contents of dozens of such journals and the programs of major meetings, looking first for presentations by “their” scholars and, from among those, selecting which ones seem immediately translatable. The exercise of this “news judgment” is perhaps the most valuable action a public information officer can take.

Public affairs offices on campuses mimic, to a certain extent, conventional media newsrooms in that while some staffers cover the waterfront, most focus on specific areas, or “beats,” which limits their responsibilities and allows them to enhance their understanding of particular fields. Campus PIOs are likewise categorized. At Ohio State University, there are four of us covering all research, and of those, one specific staffer follows the social sciences. At smaller institutions with only one science writer, he or she may cover all scholarship. The key point is, however, that each of these professionals brings to the table a substantive understanding of research and a specific expertise with the academic disciplines involved. That should allow behavioral and social science researchers a greater comfort level in partnering with PIOs to report their findings to the media and the public.

Some stories, however, are not hinged on a journal article or a meeting presentation. They may have a seasonal aspect, for instance.

Recurrent media coverage of so-called winter depression and sunburn prevention are easy examples of this type. Other stories may focus on an emerging issue where researchers may be working but where no clear-cut conclusions have been drawn. And there are always the “reaction-to” stories, where an Ohio reporter might interview a local researcher about another scholar’s work reported across the country. These efforts are built on the premise that all readers are “local” and trust local information more than they do distant experts.

At some institutions, a healthy share of the public information work focuses on such reaction-to stories. For one thing, they are easy—every institution has a psychologist who might be willing to comment on the work of an out-of-state colleague—and the return on the PIO’s invested effort is media coverage for the institution without having to perform the work. Obvious ethical questions arise, and for my part, we routinely let such opportunities pass. For other PIOs, reaction-to stories are their bread and butter.

For behavioral and social science researchers, it may be worthwhile to peruse their institution’s “news” Web site to determine what kinds of stories dominate their coverage. Remember that it is easier for a reporter—and for a PIO—to produce a reaction-to story than it is to report on the results of original work, mainly because there is less to understand. And while this certainly is understandable human nature, it simply isn’t good science communications. At institutions where a large fraction of their stories are reaction-to, PIOs are basically acknowledging that their comments on the work of others are more substantive than their own scholars’ work. Reporters understand that—scholars should as well.

Let me be clear: There is nothing wrong with reaction-to stories if that is all an institution has to offer. They have a value and certainly deserve a scholar’s participation.

But simply put, original research deserves more attention and respect from the media, so that is where they should be concentrated. Given the need for a reaction-to story, they will always say yes. But they should not be the focus for their media coverage.

One approach gaining traction is to have researchers to provide a summary to accompany their papers or presentations. While well intentioned, it has its drawbacks. As researchers excel at writing for the public, and fewer still have the lay abstracts that I have seen many regularly—focus on the key findings, understanding, and that’s all. In effect, the first sentence of a good research story is often the work than what you need now. If a researcher provides a summary immediately upon acceptance of an article or proposed presentation, the story will provide that abstract.

Abstracts also play a role in drawing media attention when they are presented at professional organizations where the talks will be given, when it comes to coverage, most of these are not sure a well-written research summary from a scholar’s institution more than a compact scientist-generated abstract.

Working with such a summary may present additional challenges for both PIO and scholar. Some want to manage all coverage, while others want to manage all coverage presented at their meetings. Some will offer to partner with the PIO to do “joint” releases that serve both entities.

I’m an admitted NIMH scholar in regard: We will not “partner” with any other entity. They will provide our own releases and coordinate the date to coincide with

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But simply put, original scholarship gains more attention and respect from the news media, so that is where the most effort should be concentrated. Given the chance to comment for a reaction-to story, scholars should always say yes. But they shouldn't have this as the focus for their media exposure.

One approach gaining popularity is for researchers to provide "lay abstracts" to accompany their papers or precede their presentations. While well intended, this practice has its drawbacks. As I said before, few researchers excel at writing for the general public, and fewer still have a "nose for news." The lay abstracts that I have seen—and I see many regularly—focus more on length than understanding, and that is their great deficiency. In effect, the first several paragraphs of a good research story are a better abstract for the work than what is routinely offered now. If a researcher partners with a PIO immediately upon acceptance of a journal article or proposed presentation, the PIO's story will provide that abstract-of-sorts.

Abstracts also play a role in attracting media attention when they are requested by professional organizations prior to the meetings where the talks will be delivered. In my experience, when it comes to courting news coverage, most of these groups would treasure a well-written research story from a scholar's institution more than they would a compact scientist-generated abstract.

Working with such professional groups may present additional power struggles for both PIO and scholar. Some associations want to manage all coverage of studies presented at their meetings or in their journals. Some will offer to partner with institutions to do "joint" releases that have been vetted by both entities.

I'm an admitted Neanderthal in this regard: We will not "partner" in that sense with any other entity. The best we will do is provide our own releases and set their release date to coincide with the presentation or

publication. While many institutions are much more welcoming of these arrangements, I've always believed that the merging of different institutions' agendas dilutes the strength of the science reporting. My responsibility as a PIO is to my scholars, and I will not trade that off to partner with another institution. Others of my peers disagree.

The Writer-Editor Tug-of-War

Science writers who cover physics or genomics or cosmology seldom experience the kinds of editorial grappling that behavioral and social science writers can with their editors. All editors draw on their own experiences, as well as their journalistic abilities, to oversee the stories of their writers, and few have more than a fleeting knowledge of those fields. Because of that, they can feel less empowered to fiddle with the verbiage for fear of getting the science wrong. But with behavioral and social science stories, editors perceive a broad license to actively participate in the storytelling. After all, editors are all, by definition, acute observers of society, of behavior and human nature. That self-assuredness reinforces their willingness to reach beyond their true knowledge, and the resulting reporting can become downright disastrous.

In truth, I fall into that trap often. Since I have one of the very best social science writers on my staff, Jeff Grabmeier, who covers most of our work in these disciplines, I find myself most often playing that editor's role rather than the reporter's. And this allows me to critique his reporting with actually very little understanding of the particular research involved. Surprisingly, this is not automatically bad, but it certainly is dangerous. In reviewing his stories, which were based on his reading of the journal papers and interviews with researchers, I will look for those opportunities to extrapolate and simplify the findings, usually seeking connections that might not seem readily apparent. When this

works, it converts the story into one on a slightly higher plane than might normally be possible, and in doing so, it becomes much more interesting to reporters in the news media and therefore to the public at large.

But the risk here is great. That type of extrapolation—while useful and exciting—most often exceeds the scope of the research. Or, as Jeff so often tells me, “But that isn’t what the study was all about,” or “The research just didn’t look at that.”

From the editor’s viewpoint, the obvious conclusion or extrapolation is much more important. Moreover, it often meshes with the lay public’s perception of the obvious, or near obvious, which enhances the likelihood that readers will take the time to absorb it. But it is still wrong.

This is a chance for the researcher to experiment outside his or her discipline. When the PIO posits a conclusion that overreaches the research, it signals where he or she is headed with the story. A smart scholar can quickly detect that and redirect the PIO along a better path. That incorrect extrapolation carries with it the “thinking” of the PIO and maps a direction both writer and scholar can head. The scholar’s role, however, is to navigate, not to halt, the progress of public understanding. PIOs will greatly appreciate this kind of map making.

Good science communications never exceed the conclusions based on the data, no matter how tempting or obvious that next step may be. In our case, I’m smart enough to listen to Jeff’s reminders. That’s not always the case among the world of PIOs and reporters. Our comfort level with the behavioral and social sciences should not trick us into assuming our own expertise.

If Only They Had Done That Work . . .

The potential pitfalls surrounding behavioral and social science reporting on campus

are frightening, assuming the PIO is savvy enough to recognize them, or the researcher is aware of their existence. Both PIOs and journalists see themselves as surrogates of the public, and in that role, their naïveté can be an enormous advantage in selecting the research that will interest the masses. But like the public, they are apt to make assumptions—the greatest of which is that scholars and scientists have done the research “proving” a belief or event or fact. The truth is, however, that in many cases, those proofs have not been done, and researchers are working on assumptions rather than conclusions. This isn’t bad, of course, unless the public assumes that the proofs exist.

Assumptions aren’t bad—they just need to be acknowledged, and therein lies the frequent problem. Researchers may mistakenly believe that everyone accepts the validity of the assumption because their peers do, but the public will not. Scholars would be wise to point out in detail what is and what is not known in their research. This helps the PIO to build boundaries on the information and define it for the reader. Facts can stand on their own, whereas assumptions need logical arguments and observations to back them up. Also, these elements add a valuable comfort to a story, placing it more in the context of a conversation rather than sterile rhetoric.

Generally speaking, after they have completed formal schooling, readers, viewers, and listeners don’t want to be taught—lectures and messages sent in one direction are seldom successful. But “teaching” is different from “learning.” The public, when interested, will thirst for information they have decided is important. Our job is to ensure that it is.

Perhaps now is the time to warn against jargon, the vocabulary of a discipline and the problems it raises. A somewhat unique language and lexicon exists in nearly every field of research. It is the shorthand for scholars, expediting their conversations and adding

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precision to their dialogues. And in particle physics or molecular biology or organic chemistry, such jargon stands out as if it were in scarlet neon lights. But in many of the behavioral and social sciences, their jargon resembles common verbiage and can be taken too lightly outside of the field. Words that fit comfortably into daily conversation may also hold specific—and sometimes unexpected—meaning to researchers but would be misunderstood by reporters or the public. PIOs who cover the behavioral and social sciences usually understand this risk and may subtly correct for the differences in the stories they prepare. When there is a possibility of such dual-meaning terms in research, scholars would be well served to point that out.

When Things Go Wrong

Most of this discussion has centered on the straightforward telling of the research story, the interpretation of publications and presentations, and the novelty of individual studies. These are “good news” stories, and they represent the majority of work facing most science PIOs. But not all of it. Research communications inherently includes the areas of research risk and how to deal with them. These are episodes that involve human subjects, laboratory animals, radiation safety, biosafety, fraud and misconduct in science, computer security, infection control, and other troublesome realms. Those of us in the field may reference these as occasions “when *60 Minutes* is on the phone,” but they are a real probability for most research institutions. Prudent PIOs and researchers alike are wise to prepare for it.

In truth, few behavioral and social scientists will face the typical campus problems of radiation safety or biosafety or infection control in their work. And while they certainly use human subjects in their research—and therefore must abide by strict federal regulations—they aren’t testing new chemotherapeutic

regimens and risking patient deaths in their studies. So it is understandable that behavioral and social scientists might think they are secure against research risks. It is also unwise. Insightful scholars will remember that the public worries about the “dark side” of research as well.

An entire field of crisis communications has arisen in the past decades, an area of expertise that is called upon at the worst possible times for an organization. And it is a field that surprisingly owes much to the behavioral and social sciences in that it relies on the discipline of risk perception. Hinged closely to the evolution of the environmental movement, the study of perceived risks has helped to explain why the public—often along with the news media—respond to events in the way that they do.

Two rules govern most approaches to crisis communications: Tell the truth, and tell it quickly. The first, while seeming empirically obvious, is often the hardest for organizations—and their researchers—to adopt. The primary roadblock to that is a fear that the public will understandably react negatively if it finds an organization or individual has done wrong. In reality, the opposite is more often true. The public seems inclined to forgive mistakes that are openly acknowledged, especially if accompanied by assurances that those mistakes won’t be repeated. It shows the common humanity of institutions and their people and their willingness to learn from their errors. Though the public may not forget infractions, it will often forgive them. And in many cases, the only “problem” at issue is the natural reluctance to admit fault or reveal secrets.

The second rule—“tell it quickly”—has grown more and more important in recent decades with the evolution of the news media. Some three decades ago, communications in the United States was governed mainly by the three main television networks

and a handful of national newspapers, each of which had mainly a once-a-day cycle for the release of news. Now, with the number of networks and cable channels reaching into the hundreds, with the Internet's blogs and news Web sites, there is no news cycle—the hunger for news is constant. That means if there is something gone awry that is awaiting discovery, then organizations and individuals are running out of time as they wait.

Once enough information on a negative event or issue is available for initial coverage, then it should be released. An organization that waits to release information on such topics abdicates its option to present it in a fair light and, in effect, elects to be pushed into a defensive role. That places the public and the media in an adversarial role against an organization or its researchers, and such positions are hard ones to defend. In the end, the reputations of the slow-to-tell tend to be harmed much more than those willing to announce their problems and the solutions that they have adopted.

Some Examples

Old Bones. Some years ago, a reporter from a rather obscure West Virginia news media outlet called raising questions about a collection of Native American remains he'd heard were in storage in Ohio State's anthropology department. The remains were stored in hundreds of boxes after having been rescued from being discarded by another university. A grad student decades ago had noticed the boxed remains set aside as trash and asked for them for study. That institution agreed, and the bones were trucked to Ohio State University and stored until researchers could begin a detailed study of the remains.

But as sometimes occurs, study space and funding were scarce, and the remains continued to be stored on campus, slowly slipping from memory. Only the reporter's call decades

later brought the "Buffalo 600"—as the remains had become known—back to light.

Several points made this a potential crisis: Where once field researchers could cavalierly harvest Native American remains, this has evolved in recent years into a sensitive cultural issue; claims of ownership of the remains were unclear, as was access to the original site from which they were taken; and the federal Native American Graves Protection and Repatriation Act specifically required the "holder" of the remains to only release them "upon the request of a known lineal descendant of the Native American or of the tribe," and that hadn't occurred.

Faculty were upset, the anthropology chair felt scapegoated, and the institution—while it would love to relinquish its control of the remains—was legally bound to secure them. The media, however—and the public they represented—wondered why things were so complicated.

In the end, the partnership between the anthropology department, the science PIO, and the institution's attorneys melded to provide ample information on both the history of the remains and the constraints binding the institution from releasing them. Coverage could have been a nightmare of accusations against the university, but instead, the stories provided insight into the complexities of honoring the dead.

Bigfoot DNA. That same chair of anthropology was a closet cryptozoologist—that is, a researcher who studies creatures whose existence is uncertain. Years before, he was one of the first Americans allowed into some of the more remote areas of the People's Republic of China to search for the hairy Wildman of local legend there. The researcher was convinced that the beast existed but, rather than being an unknown, that it was the rare golden monkey. And through his negotiations with Chinese scholars, he had encountered one

who claimed to have found the roots of which might point to the animal's

At the same time, across student in molecular biology her master's thesis research potential new mechanism for this one focusing on mitochondrial nuclear, DNA. To test she needed both known animal samples to analyze. That's when the hairs came in. And in one collaborative arrangement offer, the hairs were used as

Both the biologists and cryptozoologists were aware that a finding of a new species—even one linked to a known creature—would so they swore each other that the work was completed. And the anthropology chair agreed to allow a local science reporter on a regular column topic.

Following classic reporting protocol the journalist asked the department if there was anything else new the chair responded, "Yes, we have a new DNA test to try to identify the mythical beast, but that's all we can't write about it."

In the space of a scan the naive researcher broke two rules interacting with journalist subject, jeopardized the grad student and transformed the scientist into Bigfoot! The rules:

- Never expect a journalist to withhold information you need if he or she has agreed to do so
- And never provide information to a journalist you need to stay secret—maintain a longstanding relationship

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At the same time, across campus, a grad
 student in molecular biology was finishing
 her master’s thesis research and devising a
 potential new mechanism for DNA analysis,
 this one focusing on mitochondrial, rather
 than nuclear, DNA. To test the new assay,
 she needed both known and unknown sam-
 ples to analyze. That’s where the Wildman
 hairs came in. And in one of those wonderful
 collaborative arrangements that universities
 offer, the hairs were used as the unknowns.

Both the biologists and the anthropolo-
 gists were aware that a finding pointing to a
 new species—even one linking of the hairs to
 a known creature—would be newsworthy,
 so they swore each other to secrecy until the
 work was completed. And then the anthro-
 pology chair agreed to an interview with a
 local science reporter on a completely differ-
 ent topic.

Following classic reporter’s behavior,
 the journalist asked the department chair if
 there was anything else new going on. The
 chair responded, “Yes, we’re trying out a
 new DNA test to try to identify a possibly
 mythic beast, but that’s all secret and you
 can’t write about it.”

In the space of a scant 10 seconds, that
 naive researcher broke two cardinal rules of
 interacting with journalists, doomed the pro-
 ject, jeopardized the grad student’s research,
 and transformed the science into a search for
 Bigfoot! The rules:

- Never expect a journalist or reporter to
 withhold information you’ve provided unless
 he or she has agreed to do just that beforehand.
- And never provide any confidential
 information to a journalist or reporter that
 you need to stay secret—even if you have
 a longstanding relationship with the person.

The front page of the next day’s *Columbus
 Dispatch* newspaper carried the story “DNA
 Scientists at OSU on a Quest for Bigfoot” that
 focused on the mythology and totally ignored
 the science. The anthropologist was surprised
 that his secret had not been kept. And I began
 fielding the first of more than 650 calls from
 reporters around the world wanting access to
 our scientists. The biologists were furious and
 broke off all contact with both the anthropol-
 ogy department and those of us fielding
 media calls. Sadly, the science was completely
 lost as the frenzy continued for more than
 2 weeks with calls coming in from as far away
 as New Zealand.

An otherwise imminently intelligent
 anthropologist had fallen into a fairly com-
 mon trap. The reporter was well known as
 one who loved “looking under rocks” for
 stories, and this was a perfect chance for him
 to grab for the sensational in lieu of the
 science. Reporters, like other members of
 society, may have their own select traits and
 prejudices, and scholars are unwise to ignore
 such variables.

Had the researcher simply called the insti-
 tution’s science PIO before the interview, he
 would have been warned. That’s the pri-
 mary reason why scientists and scholars
 should partner with an institution’s public
 information officers when dealing with the
 media. And that should be done beforehand
 to establish the relationship between writer
 and scholar. When research has a potential
 for controversy, scientists need to lean on
 their science communications partners. And
 that trust must be established before the
 moment of crisis.

The culture of journalism is vastly different
 from that of science when behavior is consid-
 ered. What may be prohibited in science may
 be allowable in the news media, and only
 those who understand both cultures can map
 out a safe path. That’s why science communi-
 cators are so valuable in these circumstances.

SUMMING UP

Scientist-news media interactions are, at their core, all about control—the control of information and the control of the message. Scholars seek out new knowledge and are obligated to share it. Journalists, on the other hand, want news, and that new knowledge may or may not fit their definition. While information may originate with the

researcher, it is ultimately conveyed to the public via the media. The institutional science PIO is the bridge between the two and the glue connecting the two sets of interests. But scientists need to form partnerships with these communicators early in the game and nurture those collaborations. These long-term relationships are the key to ensuring that the scholarship is accurately and fairly conveyed to the world.

The Intern

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The Internet provides information to a global audience and should be as powerful a resource as mass media. By the fall of 2000, 68% of Americans with home Internet access had risen to 68% (Fox, 2000). In the fall of 2000 (Rainey & Han, 2001), 68% of Americans used the Internet. This audience appears to be a source of information that influences important decisions. According to a survey by the Pew Research Center & American Life Project (2000), 68% of Internet users (about 60 million) reported that “the Internet helped them to learn or negotiate their views on important episodes in their lives in the past year” (Horrigan & Rainey, 2001). A survey of Internet consumption, 58% of the participants reported that they would choose the Internet if they needed such information. In a survey by Fallows (2003), 63.3% of policy makers, advocates, and the most respondents (63.3%) reported that the Internet for policy making once per day, and the majority (87.8%) reported at least once per week (Rothbaum & Rainey, 2003).

The audience for online science is commensurate with the growth of *The Internet as a Res*