Guest Editorial: From Blind Copying (bcc) to Basics (abc) in Science. -Ilan Kelman, CICERO, Oslo

Written by M. Glantz. Posted in All Fragilecologies (http://fragilecologies.com/?cat=1), Guest Articles (http://fragilecologies.com/?cat=21), Human Condition (http://fragilecologies.com/?cat=37)

Published on February 07, 2011 with 1 Comment (#comments)

Author: Ilan Kelman

Science has become mired in blindness; it is dominated by bcc representing "blind copying". That is, blindly copying what has gone before without innovative thought. In science today, bcc means Bureaucracy, Corporatism, and Conservatism.



Bureaucracy: Science is being bogged down in interminable reporting, complicated paperwork systems, and paperwork for paperwork's sake. Rather than scientists, senior researchers are morphing into bureaucrats. That does not mean reducing accountability or project management. Those are feasible without snowing people under with paper and checklists. Science is becoming increasingly bureaucratic without any increase in accountability.

Corporatism: Political leaders are heard today claiming that all money invested in science must have a business payback. Scientists are pummelled with corporatespeak such as visions, stretch goals, identities, and objectives. Those are useful approaches for structuring thoughts in certain contexts. They cannot apply to all contexts, especially exploratory research where the pathways and outcomes are not known—cannot be known—beforehand. If all research pathways and outcomes were known in advance, then we would not need research.

Conservatism: Increasing expectations from science focus on outputs, such as counting the number of peer reviewed papers and ticking off the list of deliverables. Any attempt to take a risk is discouraged because, heaven forbid, results might not be publishable. New case studies can be nixed because it is not known what is there—which is precisely why those case studies should be researched. A culture of fear prevails that we might actually learn something different from what we expected in the first place.

How could the bcc situation improve? We must move from the bcc of blind copying to the "back to basics" of abc. What is the basic purpose of science? To search for explanations and to gain knowledge. abc achieves that through Action, Boldness, and Curiosity.



Action: Much of science plods along, week to week, hoping for a breakthrough or to find something publishable. That should not preclude excitement, dynamism, and acting on desires to know and learn more. No punishment should exist for taking action to pursue a query where potential exists for important results, even if that means deviating from the original plan or using the assigned budget for other activities. Note that action does not necessarily mean activism. The action can be along the lines of simple scientific enquiry, following a lead that appeared even if not listed in the initial project plan.

Boldness: Science should not be afraid to take risks. Risking a project or part of a budget on a daring move, an odd case study, or a unique situation has the potential for immense gains. Even if 99% of bold decisions to strike out in new directions fail, the 1% success rate will pay back dividends that are orders of magnitude greater than the expense. The evidence? The transistor. The discovery of pulsars. The proof of the CFC-induced ozone hole. Amongst many others.

Curiosity: Scientists these days frequently seem scared to ask deep questions. For example, challenge a leading scientist in climate change to prove assertions made and the consequence can be ostracism from the clique along with personal attacks. Dare to pursue a topic because it interests you and the consequence is being hauled before bureaucratic superiors to justify your use of time and budget. Try to shift a budget line to take advantage of recent developments and the consequence is being labelled a troublemaker by the granting agency who must use time (and hence money) to determine whether or not to approve such a small change. Investigation for "sheer curiosity"—just because it is there—is frowned upon. What is the point of research if we cannot follow the tendrils of our minds?

Science is being killed by blind copying. We are losing creativity and innovation. Society loses in the long-run by having fewer explanations and less knowledge to apply for a better world. Where are the scientific visionaries and leaders today who can bring science back to life—back to basics?

 $\begin{tabular}{ll} \textbf{copyright} @ mGlantz \begin{tabular}{ll} 2012 \end{tabular} (http://www.fragilecologies.com/wp-login.php) \\ () \\ (javascript:;) \end{tabular} (javascript:;) \\ \end{tabular}$