

## SEED QUESTIONS FOR SEAD REPORT

Roger Malina asked “What is ONE question you think the SEAD report should address? SEED questions should be short, and raise an issue which from your personal context you think is really important.”

Roger Malina

Have previous suggested actions been implemented, and if not why not.

If there is such a large consensus, since the 1950s, among a significant creative community, what is new today that would motivate serious foregrounding of the SEAD agenda presented here?

[Bob Root-Bernstein] TO be appended to the sample questions listed above:

What kinds of new studies or types of new data need to be gathered to convince skeptics that the SEAD agenda is worth carrying out?

[Todd Siler] TO be appended to Bob's question and the other questions:  
How much do we need to say (with data) and do (with knowledge) and demonstrate (with wisdom) and confirm (empirically) to convince skeptics that the SEAD work is essential for improving creative collaborations that have yielded "Modern Marvels" and myriad advanced art-science-technology innovations?

Clue? “The human mind treats a new idea the way the body treats a strange protein; it rejects it.”

—Sir Peter B. Medawar

**Bob:** But as Medawar also knew, presented properly foreign objects (and ideas!) can be tolerized!

**Todd:** Response to Bob Root-Bernstein's response to the question I had posed re the issue of "inducing tolerance" (re the immunological process of 'tolerating' foreign bodies and ideas); to me (Todd), that tends to lead to a sort of strained, "mandated cooperation," rather than fostering voluntary, cooperative working relationships that make creative collaborations successful.

Yes, indeed. Nature can tolerize foreign objects, just as human nature can learn to tolerate foreign ideas. But the challenge remains how to 'properly present' these foreign ideas (and new approaches, agenda, etc.) so they're not merely tolerated but rather they're fully incorporated into an all-purpose, creative, collaborative system of innovation -- one that's ever-agile and adaptive. That way, the new

ideas & approaches can help "optimize" the system and not weigh it down or burden it with ineffective, uncooperative working relationships.

Lucinda Presley

My burning question relates to K-12 formal education:

How can we integrate the vital creative/innovation thinking skills with mandated content learning?

Scot Gresham-Lancaster

From my orientation and recent research I would ask:

How do we best integrate the recently developed curriculum of multimedia design and rendering (i.e. interactivity, immersive world creation, sound synthesis, 3d-modeling tools, etc.) with science and engineering education?

"robert thill"

IP Paper

Here are some basic questions:

- What has SEAD discovered?
- What do the SEAD white papers reveal?
- What do the SEAD white papers conceal (What is missing?)?
- How will SEAD articulate its findings beyond this report?
  
- What does SEAD need to support the implementation of its suggested actions?
- What drives the SEAD network of volunteers?
- How will the SEAD network be sustained?
- Why is SEAD important?

What is next?

"Chris Fremantle"

The question that has emerged from the SEAD process has been about value, and in particular that collaboration between scientists, engineers, artists and designers creates unequal benefits.

How can we develop career benefits for scientists and engineers who engage in cross disciplinary and collaborative practices with artists and designers?

Regardless of the two cultures and the perceived dominance of science and engineering, the reality is that collaboration across this territory has, broadly speaking, specific benefits in terms of career advancement for artists and designers, but not for scientists and engineers.

Scientists and engineers are generous with their time, knowledge and skills to work with artists and designers. As was specifically noted in our paper, and has been noted in other papers we have read, there are no career benefits in collaboration across disciplines for the scientists and engineers. What can we do about this? In the UK with the increasing research funding emphasis on 'impact' there may be an increased, albeit very focused, role for artists and designers as part of public engagement.

Prof. Michael Punt

Dr. Martha Blassnigg

What changes to disciplinary structures in academia and publishing need to be in place to facilitate emergent insight, knowledge and interaction that could not have been foreseen or designed in anticipation of a specific outcome or solution to a problem.

Krishna Kumari Challa

The first question we should ask ourselves is how honest we are. Because only honesty can convince the world about our work and its benefits.

People are asking me why I want to see the other or dark side of the sci-art movement too. "Are you a pessimist?" they ask me which puts a smile on my face.

They say

An optimist would say the glass is half full, while a pessimist would say it is half empty. I think the third point of view should define who a scientist is. For me the glass is always full - half with water and half with air. If you don't try to see the unseen, you are not a scientist at all! A scientist should be able to see things exactly as they are without spins, twists, biases and exaggerations. In a way in a detached way. And s/he should be able to tell the world exactly what s/he sees i.e., the truth!.

And only this honesty would be able to convince the world about the real nature and benefits of science-art-literature interactions.

Georg Essl

How will research the furthers SEAD be funded when related funding programs such as NSF's CreativeIT have not been extended and what will it take to convince national agencies that SEAD is a core field that deserves persistent funding?

Jon Ippolito

A technological mistake can spur insight in both art (Paik's Magnet TV) and science (Penzias's hot antenna). Could SEAD make the case for integrating the artist's knack for exploiting "errors" into the engineering workflow?

Nina Yankowitz

Why is it believed that data realization is a closed system that is devoid of building new comprehensive data tools via modeling respective brain and mind functionality systems?

Miklos Peternak

Are there any space/support for non-dependent (free) research and experiment in the field of art/science/technology in contemporary societies and if so: Where?

Arantxa Mendiharat

Can we reinforce the role of mediators as agents to build confidence around developing SEAD collaborations?

"Jennifer Kanary Nikolov(a)"

My question would revolve around Best Practices of Art Science Collaboration.

What is considered as Best Practice? And Why?

What are the 'measuring tools' of Best Practice?

Have there been any differences between what was considered Best Practice in the 50's and Best Practice now? What has changed?

Who is able to educate and analyze Best Practice?

It is one thing to have consensus in theory, but without understanding it in practice, in clear and cut language with a list of examples, it is very hard for interested parties to invest in.

Lapointe Francois-Joseph

I have very simple - yet fundamental - seed questions for the SEAD report:

1- WHAT ARE DISCIPLINES GOOD FOR ?

2- DO WE STILL NEED DISCIPLINES (IN TODAY'S COMPLEX WORLD) ?

2a - if the answer is "yes": HOW CAN WE ENCOURAGE TRANSDISCIPLINARITY IN A DISCIPLINARY CONTEXT?

2b - if the answer is "no" : HOW CAN WE REPLACE DISCIPLINES? BY WHAT? PROJECT-BASED (OR PROBLEM-BASED) LEARNING AS OPPOSED TO DISCIPLINARY TRAINING?

cristina miranda

Parting from the thesis that the best way to connect science and engineering to the arts, design and humanities is to center action in relation to a complex problem

that is linked to all the fields of knowledge, what are the essential elements that should be taken into consideration to deal with this problem from a trans-disciplinary approach?

Ana Peraica

How art-science-technology addresses traditional topic of morality of arts, ethical norms of science and political consequences of ownership over technologies?

An additional note here is; in the era described with the disappearance of morality, relativisation of ethics and re-distribution of ownership over media, changing political landscape.

Glenna Batson

How can we move forward by forming viable partnerships with business and industry without adopting a 'business model' that minimizes, alters or otherwise corrupts our core values and principles?

Secondly, how can we become truly transdisciplinary (even beyond disciplinary) - maintaining our power while co-evolving with other disciplines and avoiding submersion and synthesis?

Eugenio Tisselli

White paper: "Sauti ya wakulima: using mobile phones to make the voices of rural farmers in Tanzania heard."

The question is: "How can mobile phones be used as tools for facilitating participatory, cross-sectorial research in the field of small-scale agriculture?"