

Institutional Validation is vital to overcome the fierce resistance, ridicules, & hostilities against Paradigm-challenging breakthroughs

Please read this synopsis of one of the most cited academic books, *The Structure of Scientific Revolutions* by Thomas S. Kuhn, who is widely regarded as one of the greatest philosophers and renowned historians of science of the 20th century: http://users.df.uba.ar/sgil/tutoriales1/fisica_tutoriales/filosofia/kuhn0.pdf.

The first paragraph of this synopsis states:

A scientific community cannot practice its trade without some set of received beliefs. These beliefs form the foundation of the "educational initiation that prepares and licenses the student for professional practice". The nature of the "rigorous and rigid" preparation helps ensure that the received beliefs are firmly fixed in the student's mind.

[Mistake-1] Scientists take great pains to defend the assumption that scientists know what the world is like...

[Mistake-2] To this end, "normal science" will often suppress novelties which undermine its foundations.

[Mistake-3] Research is therefore not about discovering the unknown, but rather "a strenuous and devoted attempt to force nature into the conceptual boxes supplied by professional education".

For example, virtually every book and research paper on software engineering teaches that “parts that are designed and/or suitable for reuse are components,” and that “CBD/CBE (Component-Based Design, Development, or Engineering) involves building a product using such reusable parts.” As a result, researchers

around the world are strenuously and devotedly working to force nature into the conceptual boxes imposed by their flawed education and reinforced by years—often decades—of experience confined within those same boxes.

Dr. Kuhn and Dr. Popper are widely regarded as two of the greatest philosophers of science of the 20th century. Dr. Popper's work describes the ideal scientific process in a perfect world, whereas Dr. Kuhn examines the imperfect, real-world conditions of scientific knowledge and progress. To date, no one has produced any evidence that disproves the following statement: Software researchers have been consistently committing all three mistakes outlined in Dr. Kuhn's seminal book.

Today, every known definition of a software component describes a kind of fictitious entity that is misleadingly labelled as a *component*, and the use of such entities is mistakenly regarded as CBSE (Component-Based Software Engineering). Researchers fiercely resist anything that challenges their sacred, received beliefs—especially when it involves discoveries that fall outside their entrenched conceptual boxes. This resistance often takes the form of hostile attacks intended to suppress novelties, even when those novelties are nothing more than self-evident facts.

For example: A product can be considered a Component-Based Product (CBP) if and only if it is built by assembling multiple *real components*—where *real components* are parts that can be physically or logically assembled or plugged in. That is, a part qualifies as a component if and only if it can be assembled. Therefore, no part should be called a component if it is not designed or intended to be assembled—even if it is reusable. These otherwise obvious facts are treated as heresy in the field of software, and advocating for them is often seen as arrogant or disrespectful. Today, no known type of software component is actually designed or intended to be assembled—by any reasonable stretch of the imagination.

Why Institutional Validation Is Vital

For over 16 years, the Plaintiff has been struggling to communicate a verifiable fact that nearly every software expert or researcher perceives as offensive, arrogant, or disrespectful — and therefore refuses to examine, despite the availability of reproducible and independently verifiable evidence: The theoretical foundation of Component-Based Software Engineering (CBSE) is riddled with pseudoscientific misconceptions — a grand illusion as misleading as the geocentric model or miasma theory. Just as those outdated paradigms were ultimately dismantled and replaced by the hard sciences of heliocentrism and germ theory, CBSE too must undergo a scientific revolution. It can — and must — be replaced by a valid, rigorous paradigm grounded in hard science.

The mandates to the NSF from both Congress and the National Science Board's PRT Policy are clear: to seek out, identify, and support precisely the kind of paradigm-challenging breakthroughs that face fierce resistance, ridicule, and hostility from mainstream orthodoxies — which often attempt to suppress or sabotage them.