

Absolute lies, Absolute truths, and truths those are very close to
absolute truths for practice purposes

For a simple question, which planet is at the center of planetary orbits?

This is a 'root question' and answer to this question is a "seed axiom".

The erroneous assumption that the Earth was at the center was absolutely wrong (i.e. a lie). This resulted in a paradoxical paradigm: Geocentric-paradigm. Trying to advance any (e.g. scientific or technological) field by relying on such absolute lie results in sidetracking progress and derails the progress of the field. The Sun is at the center and the planets going around the sun is an absolute Truth. This discovery still holds True, and it is universally accepted as an absolute truth. Today no one can deny this absolute Truth.

The discovery of this Truth put scientific progress on right tracks, for answering very complex question, such as "How does Nature work?" and "What are the underlying mechanisms?"

Trying to advance scientific field by relying on such absolute truth (the Sun is at the center) resulted in discoveries such as of Kepler's laws, discovery of Newton's 3-laws of motion and universal gravity. Although these discoveries might not be absolute truths, for all practical purposes each discovery taken our

knowledge closer and closer to absolute Truth. The Einstein's discoveries such as Theory of relativity took our scientific knowledge further closer to absolute truth. Researchers are using complex theories such as String theory and Big-bang theory to expand our knowledge further closer to the absolute truth.

This assumption is an absolutely wrong (i.e. a lie): Any kind of software parts is a kind of components, as long as the software parts either have certain useful properties (e.g. reusable or standardized) or conforming to a so called component model. It is absolutely wrong to define that using such fake software components is CBSE (Component-Based Software Engineering).

For a simple question, "what is a component?", or "what makes a physical part a physical component?"

The first absolute truth is: There exists an accurate description for the physical functional components, for example, there exists a set of essential properties that are uniquely and universally shared each and every known physical component; and it is possible to discover the essential properties that are very close to the absolute truth for all practical purposes.

The second absolute truth is: There exists an accurate description for the CBD (Component-Based Design) of physical products, for example, a set of essential aspects that are uniquely and universally shared each and every known

design of physical products; and it is possible to discover the essential aspects that are very close to the absolute truth for all practical purposes.

Even it is not possible to find absolute truth to these questions, it is certainly possible to discover answers that are very close to absolute truth for all practical purposes to put the scientific and technological progress on right tracks to peruse the answer to very complex questions such as, such as what are the underlying mechanisms of engineering for maximizing automation, increasing division of labor and minimizing accidental complexities?

Does the force of attraction between two masses decreases as the distance between the masses increases? The answer is Yes, and it is an absolute truth. Our scientific knowledge consists of countless such answers that are absolute truths for countless simple questions, such as, what is the charge of electrons, the speed of light in vacuum etc.

My point is, first we must be absolutely sure that there is a force of attraction between any two objects having masses. In this context, I consider this (there exists an force of attraction between masses) as first principle and the next is derived by relying on the first principle: We can invest our effort and time to quantify the force, for example (in this case), Newton quantified the force in terms of the masses of the objects and distance between the objects.

No real scientific field can make any progress by relying on wrong answers (e.g. seed axioms) to simple questions (e.g. root questions) such as 'what planet is at the center' or 'what is a component'. Does there exist an answer? The answer is 'Yes' and this answer is an absolute Truth. Is it possible to discover the answer that is very close to absolute Truth for all practical purposes? The answer is 'Yes' and this answer is an absolute Truth.

Our scientific knowledge consists of countless answers that are very close to absolute truths for all practical purposes for countless questions (derived from first principles), such as, Kepler's laws or Universal Gravity. For example, Newtonian mechanics are extremely close to absolute truths for all practical purposes in mechanical and civil engineering. The discoveries of Einstein such as relativity took our scientific knowledge further closer to absolute truth.

A complex paradigm comprises a matrix of answers (for simple first principle questions or for moderately complex questions that might rely on first principles). We can find an answer for a complex question (i.e. underlying mechanisms of a paradigm) that is very close to absolute truth for most of the practical purposes by finding answers that are absolute Truths for all the simple questions and finding answers that are very close to absolute Truths for moderately complex questions, where the answers to the moderately complex questions rely on absolute truths for many simple questions (e.g. first principles).

For example, it is an absolute Truth that any two objects each having a mass attract each other. No one can deny that the answer is not absolute truth. Another absolute truth is that force of attraction reduces as the distance between the objects increase. Please kindly notice the questions are made to build first principles. Newton's theory of universal gravity tried to quantify the attractive force between two objects (e.g. in terms of distance and mass). We really don't know, if Newton's answer is absolute Truth, but based on our centuries of knowledge and experience we know that the Newton's answer is extremely close to absolute Truth for all practical purposes.

The geocentric paradigm evolved from the assumption that "the Earth is static at the center", so this assumption was seed axiom for geocentric paradigm. The heliocentric paradigm evolved from the assumption that "the Sun is at the center", so this assumption is seed axiom for heliocentric paradigm. Existing paradigm for CBSE evolved from untested definitions for so called software components, so the definitions are seed axiom for the existing CBSE paradigm.

Getting wrong answer to root question "which planet is at center" side tracked scientific progress and resulted in a scientific crisis. The answer to such root question is seed axiom for respective paradigms. Likewise, if there exists an accurate answer to root question "what is a component" (e.g. absolute Truth or extremely close to absolute truth for all practical purposes), getting wrong answer

to the root question certainly side tracks progress of CBSE paradigm and results in software engineering crisis (which I believe, we have been experiencing now).

Finding proofs for the following shows that the existing definitions for so called software components and so called CBSE are fundamentally flawed: Assume there exists a set of essential properties uniquely and universally shared by each and every known physical functional component, and the essential properties are {S, R}. That is, no physical part can be a physical functional component without having the essential properties and it is impossible to find a physical functional component without having the essential properties. I could not find any evidence that any one ever tried to find such essential properties of the physical functional component.

Our website provides an irrefutable proof that (i) there exists such essential properties for physical functional components, (ii) it is possible to discover the essential properties (which are extremely close to absolute Truth for all practical purposes), and (iii) it is possible to invent real software components (having the essential properties) logically equivalent to the physical functional component for achieving real CBD (CBD for Software), which is logically equivalent to the CBD of physical products. <http://real-software-components.com/>

If such essential properties exist and it is possible to discover the essential properties, why isn't it possible to invent real software components (having the

essential properties), where the real software components are logically equivalent to the physical functional component for achieving real CBSD (CBD for Software), which is logically equivalent to the CBD of physical products.

Doesn't computer science provide wrong answer (flawed seed axiom) to the root question (i.e. "what makes any physical part a component?") of the CBSE (Component Based Software Engineering) and allowing the evolution of the paradigm for the CBSE for decades by relying on a flawed seed axiom (without ever even trying to validate the seed axiom)?

Is there any proof to so show that computer science didn't provide wrong answer (flawed "seed axiom") to "root question" of CBSE "what is a component"?

The research must validate existing 'root axioms' for software components and CBSE (Component-Based Software Engineering). The researchers of computer science and software engineering must try to discover truth, first principles for the existing paradigm for CBD for large physical products and nature of physical components that are allowing the components to achieve the CBD for large physical products. In light of this knowledge of Truths, the research must validate existing 'root axioms' for software components and CBSE (Component-Based Software Engineering).