

## Analysis Of Steve Fuller's Social Epistemology: A Tool for Balancing Innovation and Human Values

**Charles Paul Chikelo Obidike**

Department of Social Sciences, School of General Studies

Federal Polytechnic, Oko, Anambra State, Nigeria

[Charles.obidike@federalpolyoko.edu.ng](mailto:Charles.obidike@federalpolyoko.edu.ng), +2348037569302

### Abstract

This paper provides a comprehensive examination of Steve Fuller's contributions to the field of social epistemology, with particular focus on the interconnections between knowledge and power. Social epistemology, as a subfield of philosophy, examines the social dimensions of knowledge production, distribution, and validation, challenging the traditional, individualistic accounts of epistemology. Fuller's work has been pivotal in reshaping the understanding of knowledge as a socially situated and contested phenomenon, deeply embedded within political, economic, and institutional contexts. This helps to balance innovation and human value. Fuller is of the view that knowledge is best produced, distributed and validated within a social context. The paper begins by outlining the foundations of social epistemology and contrasting it with traditional epistemological frameworks. It then delves into Steve Fuller's approach, exploring his critique of classical epistemology and his emphasis on the role of power in shaping what is accepted as knowledge. Drawing from Fuller's analysis of science, technology, and societal institutions, the paper explores how knowledge is not just a neutral or objective resource, but a product of power dynamics that shape its creation, dissemination, and validation. As such innovation and human value are dependent on social interaction. Through discussion of Fuller's ideas in relation to the paper, it highlights how power relations are embedded within knowledge systems, influencing both what knowledge is produced and who has the authority to define it. The paper also addresses key criticisms of Fuller's social epistemology, considering alternative perspectives and the limits of his framework, before concluding with reflections on the implications of his work for contemporary epistemological debates, ethics, and the politics of knowledge. Ultimately, this paper aims to offer a critical assessment of Fuller's social epistemology and its significance for understanding the ways in which knowledge is intertwined with power in modern societies. Using descriptive analysis, the paper examines the ethical, political, and institutional dimensions of knowledge. It sheds light on how social epistemology can offer more nuanced and socially engaged responses to the challenges of knowledge production in a complex, power-laden world. This will help to determine the kind of innovation that will promote human value.

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## Introduction

Social epistemology is a branch of epistemology that examines the communal aspects of knowledge creation, dissemination, and validation. According to (Goldman 1999:3) Social epistemology is differentiated from traditional epistemology because its focus is on the role of the social processes and institutions in shaping knowledge rather than focusing on individual cognition. Fuller puts it more succinctly when he opined that the production of knowledge is not simply an individual's affair but a product of social interactions, collaboration and collective efforts. According to him, "Social epistemology investigates how knowledge is produced not only through individual reasoning and observation but also through social interactions, collaboration, and collective efforts. It is concerned with the ways in which knowledge systems are influenced by power, authority, social structures, and cultural contexts." (Fuller, 1998: 45). Michel Foucault in his critique of traditional epistemology points out that in traditional epistemology, knowledge has typically been viewed as an individual pursuit, grounded in personal experience and cognitive faculties. (Foucault, 1995:27) Thus there is no consideration of societal contribution towards development of knowledge. He extols social epistemology as knowledge that is deeply embedded in social practices in which validation and distribution of knowledge are socially mediated. Social epistemology thus incorporates insights from sociology, political theory, and history to understand how knowledge is constructed and legitimized within particular social contexts.

(Wynne, 1992: 281-304), points out that one key aspect of social epistemology is its focus on the “epistemic communities” i.e groups of individuals or institutions that collectively produce and sustain knowledge. This perspective highlights the importance of networks of experts, institutions like universities and laboratories, and even the media in shaping public understanding and acceptance of what counts as knowledge. For instance, scientific knowledge is not just a product of individual researchers but results from collaborative efforts, peer review, funding agencies, and political influences. If this is the case, when there is innovation, the product of the innovation will be a collective decision of the community rather than an imposition of a particular person or group of people.

Overall, social epistemology serves as a critical tool for analyzing how knowledge is not only a cognitive or philosophical issue but a social and political phenomenon that is shaped by human interaction, institutional power, and cultural norms. Consequently to determine innovation and human value community of human persons must be considered.

The problem this work seeks to address is that innovation that does not consider human factor may end up destroying human value. Steve Fuller’s social epistemology is used as epistemic foundation to determine the kind of innovation that will succinctly address human problem in a way that will enhance human value. It seeks to address a central problem of how knowledge, as a collective human endeavor, is shaped, distributed, and legitimized within societal structures and institutions. This will help to bring innovation that will serve the interest of the people. This challenges traditional, individualistic epistemology, which prioritizes abstract, context-independent theories

of knowledge, and emphasizes on the social, ethical, and political dimensions of knowledge creation and application.

### **Development of Social Epistemology**

The historical development of social epistemology traces back to the evolution of ideas about knowledge from the traditional individual-centric views of classical epistemology to a more social and communal understanding of knowledge. This shift has been influenced by various intellectual movements, key figures, and interdisciplinary contributions from fields such as sociology, philosophy, science and technology. One of the most outstanding of such influence are debates about the nature of knowledge and how it is acquired, shared and validated. Traditionally, epistemology focuses on the individual knower and the internal cognitive processes of belief formation. Early modern philosophers like René Descartes and John Locke emphasized the role of individual reasoning in acquiring knowledge. Over time, philosophers began to recognize the importance of social and contextual factors in shaping knowledge, particularly through the influence of pragmatism.

Pragmatism, a uniquely American philosophical tradition, emphasizes the practical consequences of ideas as the basis for their meaning and truth. Both Charles Sanders Peirce and John Dewey were central figures in this tradition, developing the concept of collective inquiry as a cornerstone for understanding how humans engage with the world and solve problems.

Charles Sanders Peirce (1839–1914), often regarded as the founder of pragmatism, introduced a rigorous approach to inquiry that emphasizes the communal and iterative nature of knowledge

production. In (Peirce 1992: 109 - 123) he argued that the goal of inquiry is to resolve doubt and establish stable beliefs. He identified four methods of belief fixation: Tenacity: Clinging stubbornly to a belief. Authority: Accepting beliefs imposed by institutions. A Priori: Relying on intuition or self-evident truths. Science: Using empirical observation and logical reasoning, which he deemed the most reliable method. Scientific inquiry, for Peirce, requires a community of investigators committed to open dialogue and continuous testing. Thus, an innovation that will be balanced and promote human value will be the one that is socially orientated. Peirce emphasized that knowledge is not a solitary endeavor but a collective process involving dialogue and collaboration. The "community of inquiry" ensures that individual biases are minimized and that conclusions are subject to scrutiny and revision. Peirce's "pragmatic maxim" also states that the meaning of a concept is rooted in its practical effects. This principle connects theory to action and highlights the experimental nature and communal foundation of understanding.

John Dewey extended Peirce's ideas into broader social and educational contexts. Dewey viewed inquiry as an active and participatory process, essential for personal growth and societal progress. In *Logic: The Theory of Inquiry* (1938, 58 – 62), Dewey described inquiry as a process of reflective thinking that transforms problematic situations into resolved ones. It involves identifying a problem, gathering information, generating hypotheses, and testing solutions. For Dewey, inquiry is not just intellectual but experiential, grounded in the interaction between individuals and their environment. Furthermore, Dewey connected inquiry to democracy, arguing that a well-functioning democracy relies on citizens capable of critical thinking and collective problem-solving. His work in *Democracy and Education* (1916: 45 - 49) highlighted the role of education

in fostering inquiry skills and collaborative decision-making. He also emphasized the communal nature of inquiry, asserting that meaningful solutions to problems arise through dialogue, cooperation, and shared experiences. Inquiry for him is deeply embedded in social practices, shaped by cultural norms, and oriented toward practical outcomes. Dewey viewed inquiry as experimental, requiring individuals and groups to test ideas in real-world contexts. This aligns with his broader pragmatist philosophy, where truth is evaluated through its ability to address concrete challenges.

The commonality between Peirce and Dewey is evidenced in inquiry as Collective endeavour. Both philosophers stressed the importance of communal effort in the pursuit of knowledge, highlighting the limitations of individual perspectives. Peirce's pragmatic maxim and Dewey's experimentalism both tie the meaning of ideas to their practical applications and consequences. Both thinkers embraced the fallible and evolving nature of knowledge, rejecting the notion of absolute certainty. Inquiry, for both, is a process aimed at addressing real-world problems, whether they be scientific, ethical, social or otherwise.

### **Social Epistemology of Steve Fuller**

Steve Fuller's approach to social epistemology is foundational in establishing the field as a normative and interdisciplinary study of knowledge that critiques traditional epistemology's individualistic focus. Fuller's version of social epistemology emphasizes the role of social processes, institutions, and power dynamics in shaping what is accepted as knowledge. He argues that knowledge is not merely an individual cognitive achievement but a collective endeavor that

should be evaluated based on social and ethical goals, including the improvement of society as a whole. (1988. x – xi). Fuller is widely regarded as the founder of social epistemology as a formal field of study, with his book *Social Epistemology* (1988) serving as its cornerstone. His work challenges the traditional epistemological focus on individual knowledge and objectivity, arguing instead that knowledge is a product of social processes, institutions, and power relations. Fuller has advocated for a normative approach to epistemology that evaluates knowledge based on social goals and ethical considerations, setting his work apart from purely analytical or descriptive traditions. Fuller draws inspiration from diverse thinkers across sociology, philosophy, and science. His influences include Karl Mannheim's sociology of knowledge, Thomas Kuhn's concept of scientific paradigms, and Michel Foucault's analysis of power and knowledge. Fuller's work also intersects with the pragmatism of John Dewey, advocating for knowledge that is practically useful and democratically accountable.

One of Fuller's notable contributions to social epistemology is his critique of epistemic elitism and traditional notions of expertise. He argues that knowledge should not be the exclusive domain of experts; rather, it should be democratized and accessible to the public. This position has made him a prominent voice in debates over the public understanding of science, as well as in discussions on science policy and governance. (Fuller, 2007: 4–5)

### **Proactionary Principle in Innovation**

Innovation is commonly attributed to the realms of science, technology and business entrepreneurship. (Casale, 2024) opines that innovation is a philosophical thought. According to

him, “However, a deeper dive into its origins reveals that the essence of innovation is profoundly rooted in philosophical thoughts.” This is observed in the Aristotle’s empirical influence, Nietzsche’s ‘will to power’, Kant’s ‘epistemological insights and others. Aristotle strengthens the relationship between philosophy and innovation through his empirical approach and emphasis on causality. His method of observation and systematic analysis are the bedrock of the scientific method. Nietzsche on the other hand, uses his will to power to justify human drive for ambition and creation. He posits that this extends beyond mere survival, embodying a profound desire to surpass our limitations and achieve excellence. Kant explores knowledge using noumena (appearance of things) and phenomena (things as they are). This encourages us to acknowledge the boundaries of our understanding. The impact of the works of Kant is that it motivates us to realize that while we might not grasp everything in its purest form , we can expand the horizons of our knowledge through relentless exploration and innovative thinking.

In recent years, Fuller has promoted the "proactionary principle," which encourages a proactive approach to science and technology. This principle contrasts with the more cautious "precautionary principle" by emphasizing the importance of taking risks and embracing innovation for the advancement of knowledge and society. Fuller’s advocacy for this principle aligns with his interest in trans-humanism, or the idea that humanity should use technology to overcome biological limitations and evolve beyond current physical and cognitive constraints. Fuller's contributions to social epistemology have made lasting impacts on contemporary philosophy and sociology. Fuller contends that innovation that is focused only on individual cognition and abstract criteria, such as justification and truth, misses the inherently social processes through which knowledge is created,

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validated, and applied in society. (Fuller, 2008: 25–29). Therefore innovation should be seen as a socially oriented and ethically accountable practice.

### **Nigeria Education and Innovation**

Education is system of impacting knowledge and skills that would be necessary for solving societal problems. One of the problems of Nigeria education is that it isolates the epistemic agent from the social and institutional forces that shape knowledge. Consequently, there are innovations that stand against human value. Karl Mannheim, who emphasizes that knowledge is influenced by social conditions rather than purely cognitive processes. (Mannheim, 1936: 3–5). This corroborates with Kuhn’s concept of scientific paradigms. He argues that by acknowledging these social influences, epistemology can move beyond rigid criteria and instead account for how knowledge standards evolve with changing social contexts.

The utmost purpose of Fuller’s work is to reorient epistemology toward social and ethical goals. He argues that traditional epistemology’s emphasis on abstract questions of truth and justification misses the potential for knowledge to serve as a tool for societal improvement. He therefore, advocates for a normative epistemology that considers the ethical implications of knowledge and encourages practices that benefit society. This perspective reflects John Dewey’s pragmatic approach to knowledge, which argues that knowledge should be evaluated based on its practical usefulness and social impact rather than solely on abstract criteria. (Fuller, 2007: 5–7). On this note, it is important to call to mind Babs Fafunwa’s notion that education implies a process transmitting culture. According to him, “Education is the aggregate of all the processes by which

the child or young adult develops his abilities, attitudes and other forms of behavior, which are of positive value to the society in which he lives.” From this, he develops his idea of functional education. It is the functional education that will add value to humanity.

## **Conclusion**

Steve Fuller’s framework of social epistemology has attracted significant criticism from various quarters, but he has also offered robust responses to these critiques. His defense of his position provides insights into how he navigates the critiques of his work, particularly regarding the role of power in knowledge production, his emphasis on social construction, and his calls for a more democratic science. He points out that the current system of scientific authority often excludes certain groups from participating in decision-making, particularly marginalized communities whose concerns might be better addressed through scientific inquiry. He maintains that his framework does not endorse epistemic relativism but rather seeks to understand how knowledge is shaped by social, political, and historical contexts. While acknowledging that power plays a significant role in knowledge production, he insists that science can still be a tool for social change, provided it is made more democratic and all inclusive. Thus, enchantment of human value.

Steve Fuller’s social epistemology offers a transformative approach to understanding knowledge as a socially constructed, institutionally mediated, and politically contested phenomenon. His framework challenges traditional, individualistic views of epistemology, emphasizing the role of social systems, power structures, and collective efforts in shaping how knowledge is produced,

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validated, and disseminated. While not without its challenges and critiques, his framework provides valuable insights for understanding and navigating the complexities of knowledge production in a rapidly changing world. It is a call to make knowledge systems more inclusive, accountable, and responsive to societal needs, ensuring that knowledge serves as a tool for empowerment and global progress.

The future of Nigerian education lies in creating inclusive, equitable, and context-sensitive knowledge systems that address the country's unique challenges while contributing to global intellectual discourses. By prioritizing decolonization, democratization, and interdisciplinary approaches, Nigeria can foster a vibrant culture of functional education that supports sustainable development, societal transformation and respect for human value

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