

Association for Information Systems AIS Electronic Library (AISeL)

UK Academy for Information Systems Conference
Proceedings 2014

UK Academy for Information Systems

Spring 4-9-2014

The Philosophical Universe And The Information Systems Research Journey: A Hitchhiker'S Guide To A Virtual Galaxy

Gabriel J. Costello

Galway-Mayo Institute of Technology, gabrielj.costello@gmit.ie

Follow this and additional works at: <http://aisel.aisnet.org/ukais2014>

Recommended Citation

Costello, Gabriel J., "The Philosophical Universe And The Information Systems Research Journey: A Hitchhiker'S Guide To A Virtual Galaxy" (2014). *UK Academy for Information Systems Conference Proceedings 2014*. 40.
<http://aisel.aisnet.org/ukais2014/40>

This material is brought to you by the UK Academy for Information Systems at AIS Electronic Library (AISeL). It has been accepted for inclusion in UK Academy for Information Systems Conference Proceedings 2014 by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

THE PHILOSOPHICAL UNIVERSE AND THE INFORMATION SYSTEMS RESEARCH JOURNEY: A HITCHHIKER'S GUIDE TO A VIRTUAL GALAXY

Gabriel J. Costello

Galway-Mayo Institute of Technology

Galway, Ireland

gabrielj.costello@gmit.ie

Abstract

There is concern among information systems (IS) scholars that the lack of philosophical engagement and conviction among the research community threatens the future integrity and creativity of the research process. The paper seeks to respond to Weber's call for IS researchers to clearly present their "ontological and epistemological assumptions" and to accept Myers' invitation for "further reflection and debate on the important subject of grounding interpretive research methodology". The approach of the paper is to present a self-reflective case study, following Schön, of the author's doctoral research journey. The paper aims to make a contribution by: presenting the work of two philosophers new to the IS discipline and proposing a dynamic model that opens IS research to engagement with the complex philosophical universe. The argument is developed using analogy and by describing the author's journey towards a philosophical system that reflects his worldview.

Keywords: Philosophy, research methods, phenomenology, qualitative research

1 Introduction

This paper argues that using information systems to make the world a better place requires a sound philosophical basis focused on the person rather than any material or pseudo-material artefact. This is done in the context of introducing the work of two twentieth century philosophers, the Phenomenologist Edith Stein and the Neo-Thomist Jacques Maritain to the information systems debate. Both these philosophers have a strong humanist basis to their work. The role and importance of philosophy continues to be a matter of lively debate within the information systems discipline (Baskerville & Myers, 2004; Butler, 1998; Davison & Martinsons, 2011; Dobson & Love, 2004). For example, the literature contains a discussion on combining research methods (Lee, 1989) that are traditionally associated with opposing philosophical positions or “world-views” (Mangan, Chandra, & Bernard, 2004). Furthermore opinions have been presented in leading journals that call for researchers to have a firm philosophical basis to justify their research strategies. Weber (2003b) contends that there is a pressing need to improve theory-building skills and in doing so researchers must “reflect deeply on and understand the ontological and epistemological assumptions” and be true to their philosophical position. In a related article, he argues that the pressure of Ph.D. students to conform to the research interests of their supervisors and organisations threatens to stifle anything which is truly novel (Weber, 2003a). Such analysis from respected commentators against the background of the so-called paradigm wars raises serious issues for those undertaking research in the area of information systems. Furthermore, the philosophical content undertaken as part of the research degree can result in a skimming of “how to” publications without any real engagement with first-hand philosophical debate. The purpose of this paper is to contribute to the discourse by presenting a self-reflective case study of the author’s PhD journey in the course of which the work of two philosophers new to the IS community is presented. The paper now proceeds using the analogy of the IS researcher hitchhiking through an expanding cosmos (Adams, 1992) in the context of my personal quest to answer Quine’s question “What is your ontological commitment” (Boylan, 2007). The first section compares the philosophical model currently adhered to in the IS World, with the complex cosmos of philosophy literature. The next section begins the journey by briefly outlining the

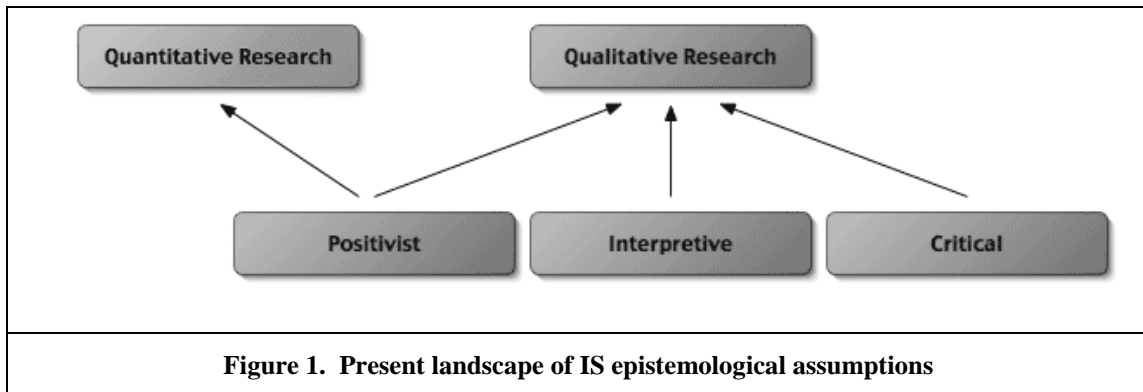
paper's methodology, grounded in the approach of Donald Schön, and by reflecting on the term philosophical "position". The following section suggests that since the philosophical universe is expanding an IS researcher needs guidance from philosophers that adhere to a similar worldview. As a result, I introduce two twentieth century philosophers; the Phenomenologist Edith Stein and the Neo-Thomist Jacques Maritain who I have chosen to assist me on my journey. Following this, I present some epistemological implications arising from reflecting on my "reference point" based on their work. Finally, I argue that my "virtual" galaxy provides a genuine contribution to the philosophical debate.

2 Background: The Philosophical Universe

The highest awarded degree in science, engineering and the social sciences is still given the title Philosophiæ Doctor or Ph.D. (Remenyi, Money, Price, & Bannister, 2003). However many theses in science and engineering have little philosophical content and the methodology sections of many social science theses contain a review of the extreme philosophical positions rather than a presentation and defence of the authors belief system and justification of how knowledge can be obtained within that system. This section firstly presents the two most important IS research approaches with reference to the main underlying philosophical assumptions. Next the simplistic IS World is compared to the complex, expanding and changing philosophical universe followed by a reflection on the term philosophical position. Finally, it is argued that the present IS positivist-interpretivist stand-off has no firm philosophical foundation so a brief overview is presented of the polar extremes usually found in the philosophical literature.

2.1 IS World and the Philosophical Cosmos

Presently, according to the Association for Information Systems (AIS) website the philosophical universe can be divided into three galaxies (AIS Research, 2013) shown in Figure 1. The figure demonstrates that IS research method is mainly divided into two streams: quantitative and qualitative (the design research stream is omitted from this figure but is becoming increasingly important). In this taxonomy, qualitative research admits three philosophical perspectives: positivist, interpretive and critical while the quantitative method firmly ties its adherents to positivism.



According to studies by Dube and Pare, the majority of case studies are done from a positivist philosophical perspective, with one study showing that 87% were so, with 12% being interpretive, and 1% critical (Dube & Pare, 2003). The positivist perspective is accompanied by a broad commitment to the idea that the social sciences should emulate the natural sciences (Lee, 1989). The researcher is seen to play a passive, neutral role, and does not intervene in the phenomenon of interest. An interpretive perspective addresses meaning, understanding, and interpretation, in a systemic and methodical way, and in the process “yields much of the desire to predict and control upon which positivist science rests its claims” (Hatch & Yanow, 2003). Critical science (Willmott, 2003) seeks to recall both the positivistic potential to support emancipation as well as the capacity to develop mutual understanding through the use of language enabling people to cooperate more effectively. A further overview of these philosophical lenses will be provided in section 2.3.

According to Hirschheim, Klein and Lyytinen (1995) most approaches in IS development begin with the assumption that information systems are “technical systems with social consequences”. However there is a growing research stream that view IS as “social systems that are technically implemented” (p 1). The IS design world is a multifaceted phenomenon as it affects the conditions of human existence. Consequently the process of analysing social complexity is very different from the conventional wisdom that IS problems are mainly technical.

Simply put we do not need more refined mathematical theories, models or new sophisticated technologies. Instead what we need is the ability to pose and debate –in a critical manner- traditional philosophical questions in the context of IS design that have been the subject of discourse by philosophers and social thinkers (p 4).

However this kind of philosophising has not received much consideration in the IS literature. This application of philosophy and social theory “is particularly beneficial because it permits us to be more realistic about potential and likely impacts of information technology”. Hirschheim, Klein and Lyytinen lament the dominance of functionalism (the application of deterministic laws to human behaviour) within the IS development genre. Finally they exhort the IS community to engage with the controversies that have raged in the social sciences over the last number of decades as they “fundamentally impact on our understanding of IS” (p 234).

2.2 Philosophical Positions in an Expanding Universe

The lack of engagement with the philosophical universe, introduced above, is concerning given that its literature is not static but an expanding cosmos with many emerging and dying stars. For example the number on entries in the Oxford Companion to Philosophy increased from 1,932 in its first edition in 1995 to almost 2,300 in the second edition published ten years later (Honderich, 2005). Furthermore, a number of famous entries such as Logical Positivism are regarded as shooting stars that have run their course and now have little support among professional philosophers (Fotion, 2005). I also argue that the use of the term philosophical position can also be misleading for something can only have a position relative to a reference point or a fixed point within a co-ordinate system (Hibbeler, 2004). For example, a position of 200 kilometres does not make any sense: a person must say that London is 5000 kilometres from New York or that they are at a height of 1000 metres above sea-level (the datum). What then could be the reference point for a philosophical position? There are a number of possible contenders in the social sciences: the human person (the variety of Humanisms), class (Marxism), capital (Capitalism), the state (Communism), the atomic particle (Reductionism), technology (Materialism) and nature (the Gaia hypothesis). Related to the debate on philosophical position is the belief on whether there is such a thing as “truth” and if it is possible to attain. In the context of IT research, Weber states, almost dramatically, that unless researchers seek a shared understanding of phenomena “what is the point in doing research” and contends that extreme form of post-modernism leads eventually to nihilism.

2.3 Philosophical Extremities

I do accept that in most areas of the universe, even in philosophy, boundaries are important to encompass both physical systems and ideas. Here I will offer Idealism as an opposing system to Positivism and briefly discuss both. However, it is interesting to note that these polar philosophical positions are presently being referred to by philosophers as realism and anti-realism (Scruton, 2004), materialism-idealism (Horner and Westacott 2000) and are being designated as “directions” rather than positions (Williamson, 2005). In addition a contemporary philosopher such as Honderich holds different positions in the philosophy of the mind and in political and moral philosophy (Priest, 2005). Furthermore, according to Feyerabend (2005), these two locations are merely poles among the constellation of options presented by the totality of philosophical departments in Western Universities where there is insufficient agreement to define “a world and a corresponding underworld”. Faced with such an unstable universe, it is suggested that it is incumbent on a person undertaking a research journey to define a “virtual galaxy” which can be bounded and defended. Following this argument, I have chosen my philosophical directions as Positivism-Idealism and will now provide a brief background.

The Positivist movement originated with the French sociologist, Comte, who in the mid nineteenth century formed a grand theory of the three stages of human thought: religious, metaphysical and scientific; with the final stage being the most productive and valuable (Lacy, 2005). However despite his zeal for the primacy of the scientific method based on observation and a rejection of metaphysics, he found it necessary to found a “religion of humanity” towards the end of his life, complete with its saints such as Frederick the Great and Adam Smith. Comte’s categories and hierarchies, of which he was rather fond, rejected Aristotle’s philosophical universe where physics and metaphysics could orbit harmoniously in their different spheres (Daintith & Gjertsen, 1999). The Vienna Circle (*Weiner Kreis*) has had a significant influence on the development of (Logical) Positivism from circa 1907 to 1930 (Bogen, 2005). The Circle flourished under the leadership of Moritz Schlick and its membership could boast luminaries such as Neurath, Carnap and Feigl with the late but influential addition of Popper. While the *Weiner Kreis* dissolved in the late 1930s due to deaths, emigration and the rise of Nazism its publications had a strong influence on the development of

analytical philosophy (Uebel, 1999). The Circle was extreme in its antipathy to metaphysics and pursued a program of the primacy of scientific knowledge. They saw only “one model of science for both the natural and cultural sciences” (Hirschheim, Klein and Lyytinen, 1995 p. 146). According to Fotion (2005), logical positivism is now regarded as having run its course and has little support among professional philosophers. This is a very salient point for information systems researchers who are still overwhelmingly positivistic in outlook.

Idealism on the other hand was presented by Berkeley in the early eighteenth century as a system where only ideas or sensations can properly be said to be real and that the mind is the only access to reality (Hamlyn, 2005). Berkeley was born in Kilkenny and held positions in the Church of Ireland as Dean of Derry and Bishop of Cloyne before spending the last part of his life in Oxford (Coady, 2005). He was extremely opposed to the newly emerging and confident scientific world-view of his time. The doctrine of idealism centres on the conception that reality as we understand it reflects the working of the mind (Rescher, 1999). In this schema reality is “somehow mind correlative or mind co-ordinated” (p 412).

Here I will also refer to critical theory which can be traced back to the German philosophical and sociological movement originating in the Institute for Social Research in Frankfurt University circa 1923 (Inwood, 2005a). One of its founding fathers was Max Horkheimer who developed the genre through the school’s journal. Its main tenet was that the ills of modern society, especially uncontrolled technology, could only be addressed by radical changes in theory and practice. Other leading members included Adorno and Marcuse. The leading light of the second generation of critical theory is Jürgen Habermas who argues that “enlightenment reason has become an instrument of repression” (p 312). Critical theory seeks to be explanatory, normative, practical and self-reflexive with “the ensuing change aiming at emancipation” (Bohman, 1999). The movement has its origins in Marxism but came to reject Marxism as a dogma. Adorno’s approach derived from his assertion that modern society is a “false totality” resulting in the domination of nature and human beings.

This section has presented a brief overview of the complex and expanding philosophical universe and has argued for a new approach to philosophical positions based on a “reference point”. It argued that the current IS model results in a primacy of method

over ontology and epistemology could be seen as an obstacle to philosophical debate and to stifle any attempt to introduce new ideas that could freshen-up the research agenda. The next section proposes that in order to do this the hitchhiker requires experienced guides and reliable travel manuals and this is presented in the context of the authors personal voyage.

3 Journey to the Virtual Galaxy

Given the instability of the philosophical universe, described previously, this section describes my approach to constructing a virtual galaxy in terms of the possibility of truth and the importance of defining a philosophical position.

3.1 Methodology of this Paper

The analysis developed in this paper is based on “deductive reasoning rather than inductive study” and as a result principally deals with “theoretical rather than empirical material”. Such an approach is used in fields such as mathematical economics: the application of mathematics to economic analysis (Chiang, 1984). Donald Schön’s (1983) publication of *The Reflective Practitioner* is regarded as a seminal work in the debate on the benefits of *reflection* for practice and research. In the book he criticises the prevailing academic epistemology as having nothing to offer either practitioners “who wish to gain a better understanding of the practical uses and limits of research-based knowledge” or scholars “who wish to take a new view of professional action”. Schön argues that this dominant epistemology of practice is based on the model of *technical rationality* where: “professional activity consists in instrumental problem-solving made rigorous by the application of scientific theory and techniques”. Its origins lie in the rise of the technological programme that came to dominate western society in the nineteenth century. This resulted in Auguste Comte formulating his philosophy of *Positivism* which contains three principal doctrines (Schön, 1983, p. 32):

- empirical science is not just a form of knowledge but the only source of positive knowledge of the world.
- men’s minds need to be cleansed of mysticism, superstition and other forms of pseudo-knowledge.

- scientific knowledge and technical control should be extended to human society in order to make technology “no longer exclusively geometrical, mechanical or chemical, but also primarily political and moral”.

Schön then laments that the seeds of Positivism were firmly planted in the curricula of American universities and professional schools; a factor which he argues has contributed significantly to the contemporary fissure between research and practice. Furthermore he concludes that the present difficulty in accommodating contemporary phenomena such as “complexity, uncertainty, instability, uniqueness, and value conflict” stems from the positivist origins of technical rationality. He proposes the primacy of *problem-setting* over *problem-solving* for practitioners. Problems-setting he defines as an interactive process in which “we *name* the things to which we will attend and *frame* the context in which we will attend to them”.

In order to fit practice into the models of technical rationality and deal with the tension of rigour versus relevance, practitioners become “selectively inattentive” to data that do not fit neatly into their pre-defined categories. For example, in a comment which is very relevant to our field, he states that “designers of management information systems” frequently fail to notice that in reality “their systems trigger games of control and evasion”. In addition, the following comment by Schön seems pertinent to the philosophical debate within IS: “among philosophers of science no one wants any longer to be called a Positivist”. Furthermore he observes that the growing rebirth of many areas recently consigned to the positivist graveyard such as craft, artistry and myth is further evidence of the failure of the positivist program. However he is at pains to point out that his problem is not with science *per se* but on the view of science portrayed by positivism.

Schön proposes that when a practitioner reflects-in-action he does not depend “on the categories of established theory and techniques, but constructs a new theory of the unique case”. He begins to describe an epistemology of reflection-in-action that “accounts for artistry in situations of uniqueness and uncertainty” to deal with conditions where the model of technical rationality “appears as radically incomplete”. One concern this author has with his initial work is that while he provides a convincing *deconstruction* of Positivism, he does not justify any philosophical alternative to underpin reflection-in-action

3.2 Truth and anything but the Truth

Plato is my friend but truth is a greater friend – Aristotle quoted in (Kenny, 2010)

The first question to be addressed following Weber's concern about a drift towards nihilism is: Does truth exist and is it possible to attain in the galaxy? This is according to Dr. Johnson of fundamental importance for without truth, there must be dissolution of society (Johnson, 2012). Maritain (1932) describes how Socrates confronted the mercenary tendencies of the Sophists by reforming philosophic reasoning and directing it to seek nothing but the truth and supports the school of Aristotle -St. Thomas Aquinas that truth is neither impossible or easy but is difficult to attain. He also argues that the denial of truth can be confronted by a "reductio ad absurdum" using the following line of argument: When someone says *that they do not know whether any proposition is true* then either:

- they do in fact know this proposition is true; in which case they contradict themselves OR
- they do not know whether it is true; in which case they are condemned to absolute silence –even mental silence (Maritain, 1932, p. 181).

3.3 My positional datum

The next task is to define the ontological reference point for this galaxy since "being" is the subject matter of ontology (Lowe, 2005). In section 2 a number of alternatives for the philosophical datum were outlined: the Human Person, class, capital, state, physics and nature. These classifications, I argue, can be further distilled to the "human person" or "something other than the human person" which is alternatively described by Scruton (2004) -following Aristotle's hunch- as the great ontological divide between reasoning and non-reasoning beings. Taking anything other than the human person as the reference point, results in a person being viewed as an object within the galaxy rather than the subject of the galaxy. Consequently, inhabitants of such an ontological system would have no inherent "human" rights and would be prey to those who are strongest or are in control (de Lubac, 1950). Having provided a boundary to my galaxy as a place where truth exists and must be sought, albeit not without effort, with reference to the human person, the paper will now suggest that knowledgeable guides are required for anyone undertaking the precarious research journey. For even Dante needed Virgil to

direct him through the underworld and Arthur Dent had Ford Prefect as his galactic tour guide.

4 Of Guides and Lonely Planets

Earlier, I argued that information systems researchers must take a clear ontological stance; which can be untied from the present positivist-idealist polarities; and that requires guidance from professional philosophers to articulate and defend. Following the perspective proposed, located to the reference point of the human being, this section will introduce the author's mentors for the voyage. For a number of reasons I have chosen the philosophers Jacques Maritain and Edith Stein as my guides:

- Taking the person as a reference point implies a version of humanism. Maritain's work on the "common good" walks a median path between solipsism and totalitarianism.
- While Maritain's studies describe the need for communion between persons he does not provide a philosophical basis. This led me to phenomenology which recently has had a significant influence on the research debate both inside and outside of the information systems world (Bergo, 2007; Butler, 1998; Ciborra, 2000a, 2000b, 2002; Ciborra & Hanseth, 1998; Costello, Cresham, & Donnellan, 2007; Denzin & Lincoln, 2008; Fernandes, 2005; Grossmann, 2005; Inwood, 2005b; Lévinas, 1998; Moran, 2000; Sawicki, 2000; Sokolowski, 2000; Susman & Evered, 1978; Tan M., Raman K.Ss, & K-k, 2003)
- Edith Stein's work on empathy, I argue, addresses the nature of the communal aspect of information and knowledge exchange (Lebech, 2004; Nota, 1988; Posselt, 2005; Sawicki, 2000; E. Stein, 1989; Stein, 2000; W. Stein, 1989).
- They both reflect my worldview and my ontological and epistemological stance.

4.1 Maritain's humanism of the "person"

The first guide is Jacques Maritain one of the most prominent neo-Thomists of the twentieth century and a leading architect of the United Nations Universal Declaration of Human Rights in 1948 (Sweet, 2004). He defended the system of Aristotle and St. Thomas Aquinas (Maritain, 1932) in various philosophical branches: for example in nature again both materialism and exaggerated spiritualism (dualism), in epistemology

against scepticism and rationalism, in ontology against substantialists (Descartes, Leibniz, Spinoza and 19th century German pantheists) and those who advocated a philosophy of pure becoming, and in ethics against hedonism/utilitarianism and stoicism. Maritain's scheme proposed that the ontology of "substance and accident" of Aristotle-St. Thomas safeguarded the uniqueness of every human being. This was contrasted with the "substance-only" construction of Spinoza, built on a Cartesian foundation, which resulted in the conclusion that everything that exists is formed of a single material. The other extreme denied substance and considered accidents as the only reality resulting in a concept of phenomena which Maritain regarded as chimerical and figments of imagination. Maritain considered the human being as an integrated whole with material and spiritual dimensions participating in a society ordered for the common good (Maritain, 2002). He presented the Thomist noetic that he adhered to as follows:

It is a noetic that recognises the existence of things outside the mind and the possibility of the mind's attaining these things and constructing within itself and by its own activity, beginning with the senses, a knowledge which is true or in conformity with what is.

He argued that bourgeois liberalism and Marxist communism ended up in the same place: treating the human not as person but as an individual and hence as an object, resulting in disastrous consequences for people and society. His humanism was firmly based on his adherence to Thomism, which is interesting given the conventional wisdom that St. Thomas was preoccupied with theistic questions, and he rejected the secular humanisms of the early twentieth century, especially fascism and communism, which he argued were de-humanising secular religions. At a time when the philosophy of St. Thomas has low popularity among Catholic theology faculty, the contention of Professor Alexander Brodie of the University of Glasgow that there is an increasing interest among contemporary "secular" philosophers in the work of Aquinas might produce a wry smile on the countenance of the Angelic Doctor.

Maritain had a wide influence which extended, some propose, to Martin Luther King who presented an undergraduate paper on his work (King, 1951). While Maritain was seen as one of the leading "Catholic" Philosophers of the twentieth century, he was adamant that while philosophy informs theology, it is a separate discipline with boundaries that he was careful not to violate. Furthermore, to disregard his contribution to the debate on these grounds would be akin to removing Adam Smith's voice from

Economics due to his apologia for Presbyterianism in the “Wealth of Nations” (Smith, 1796).

4.2 Edith Stein and the Phenomenology of Edmund Husserl

Edmund Husserl was the founding father of Phenomenology, regarded as one of the most important philosophical movements of the twentieth century (Grossmann, 2005). The system has had an immense influence in Europe in areas spanning psychology, law, values, aesthetics and religion (Rescher, 2005). He considered that philosophy should be carried out as a rigorous science using the structured methodology of reason and his vision was that the phenomenological approach (of bracketing the natural world and a reduction to pure consciousness) could overcome and synthesise the radical disagreements of contemporary philosophy. Husserl’s original work was in the area of mathematics and his most influential teacher was the philosopher Franz Brentano. His work underwent a transition from his earlier studies on the “phenomenology of mathematical and logical concepts” to the “transcendental idealism” developed in his later major work “*Ideas: General Introduction to Pure Phenomenology*” (Elveton, 1970). Lauer (1965) argues that with the passage of time a precise definition of “phenomenology” became more difficult but proposed that the term could be traced back to a “distinction made by Kant between *phenomenon* or appearance of reality in consciousness, and the *noumenon*, or being of reality itself”.

Edith Stein’s doctoral thesis “On the Problem of Empathy” was completed under Edmund Husserl in the University of Freiburg in 1916 and awarded “summa cum laude” (W. Stein, 1989). Stein was Husserl’s protégé but being a woman of Jewish origin was unable to obtain a University position because of the ideological intolerance of that time. Her doctoral thesis was written during the atheistic phase of her life but it is interesting that she analysed empathy in the context of the complete psycho-physical-spiritual person (E. Stein, 1989). Here is her own account of how her research on empathy (German *Einfuehlung*) resulted from a lecture given by the “Master himself” (Teresia de Spiritu Sancto, 1952).

Husserl in his course on Nature and Spirit had maintained that an objective external world can only be experienced inter-subjectively (i.e. by a plurality of individual knowing subjects) who are in a position to exchange information with each other; which means that such an experience

presupposes other individuals. Husserl, following Theodor Lipps, named this experience “empathy”, but did not explain what it consisted of. Here was a gap which was worthwhile filling; I wanted to discover what empathy meant.

It should be noted that some commentators point out that the German word “Geist”, as used by these philosophers, is not accurately translated as “Spirit” which has a mainly religious semantic in the English language. W. Stein states that the German understanding of Geist is somewhere between the term Mind and Soul and its philosophical study deals with the creative human spirit. For example Scheler included such concepts as beauty in his examination of the spiritual. Edith Stein’s later life was dramatic both as feminist and as a Carmelite where she continued to correspond with leading Phenomenologists and to publish in the Journal of Phenomenology until her death in the gas chamber of Auschwitz in 1942. Martin Heidegger invited Stein to contribute to a special edition of the *Jahrbuch für Philosophie und phänomenologische Forschung* to mark Husserl’s seventieth birthday for which she contributed her famous paper “An attempt to contrast Husserl’s Phenomenology and the Philosophy of St. Thomas Aquinas”. This is a salient point for this paper which seeks to synthesise phenomenology and neo-Thomism to enhance the IS research agenda. Max Scheler was another important influence on Stein and she was indebted to his insistence on “bracketing”, the exercise of which challenged her to suspend every form of a priori prejudice and contributed to her empathising with other cultures and beliefs (Posselt, 2005). Both of these philosophers were somewhat disappointed by the Master’s tendency towards Idealism in his later work and continued to identify themselves with the Realism of the early Husserl. In Stein’s political thought, “any state exists only for the benefit of human beings” and she was convinced that “humanity is fundamentally one community, precious beyond measure (ICS, 2007) .

There are, I believe, a number of ideas in Stein’s PhD thesis that could contribute to the positivist-interpretivist debate. Firstly, she contends that “mechanical causation as an explanation of physical phenomena is not appropriate for explaining spiritual phenomena” (Stein, 1989b p xxiii).

The world in which we live is not only a world of physical bodies but also of experiencing subjects external to us of whose experiences we know.

However she distances herself from psychology's tendency to subjectivism where the explained phenomenon becomes a "subjective creation" without "objective meaning". We cannot accept this interpretation.

Further on she proposes that empathy "proves to have yet another side as an aid to comprehending ourselves". This deals with the problem identified by Scheler that inner perception "contains within it the possibility of deception".

Empathy now offers itself to us as a corrective for such deceptions along with further corroboratory or contradictory perceptual acts. It is possible for another to "judge me more accurately" than I judge myself and give me more clarity about myself.

In this section I have attempted to answer my grandmother's question: "Tell me your friends and I will tell you who you are". Now that the guides have been presented, the paper will discuss epistemology; how beliefs are justified and knowledge can be obtained in this galaxy. Before proceeding further, it may be worth warning all cosmic travellers that Stein described the road of philosophy as "walking on the edge of the abyss"!

4.3 Epistemological Black Holes

In the previous sections, this hitchhiker defined a virtual galaxy which is bounded by truth and where the reference point is the human being. Here, the person has individual human rights, exists in a community empathizing with others, and should be orientated to the common good. This process is of primary importance for according to Goldman (2005) "virtually all theorists agree that true belief is a necessary condition for knowledge. This section will seek, with the aid of the guides, to provide an epistemological framework for the galaxy: what can be known and how (Scruton, 2004). Here the argument will be based on Maritain's magnum opus on the "degrees of knowledge" (Maritain, 1959). His taxonomy of knowledge, summarized by Sweet (2004), consists of three orders within which are "different 'degrees' determined by the nature of the object to be known and the "degree of abstraction involved" :

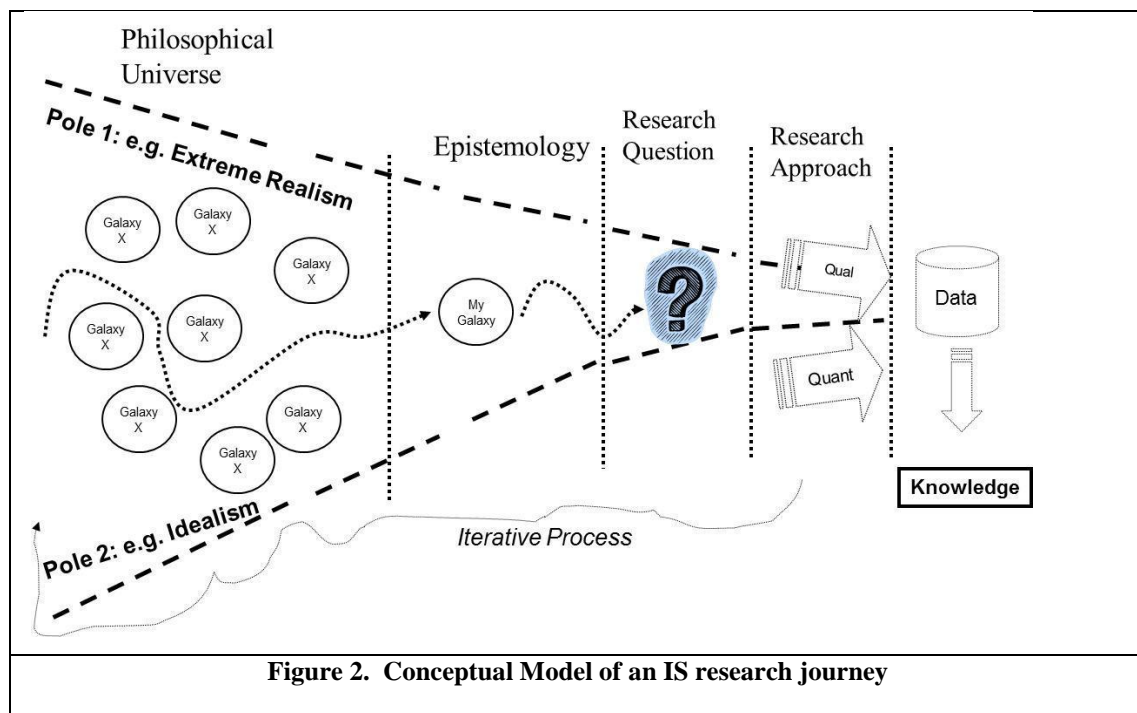
- rational knowledge or the knowledge of sensible nature (i.e., of the objects of experimental science)
- the knowledge of mathematics or of 'physico-mathematical' objects (which is limited because its objects do not have a direct relation to the actual)
- knowledge of trans-sensible or metaphysical nature

Returning to the theme of empathy, Richmond (2005) defines empathy as a “state of mind in which someone shares the feelings or outlook of another” and that this is sometimes prompted by imaginatively “stepping into someone’s shoes”. The term is different from “sympathy” and the concept is presently utilized in discussions on “moral psychology, the imagination and the simulation/theory debate”. In Edith Stein’s doctoral dissertation, after her discussion of the essence of the acts of empathy, she goes on to treat empathy in terms of the constitution of the psycho-physical individual. Here she concludes that “streams of consciousness are qualitatively distinguished by virtue of experiential content”. Individuality according to Stein has two senses, *selfness* and *qualitative variation* that are steps in the discovery of the psycho-physical unity of the “individual I”. Her work became more and more focused on the human person, not as an isolated ontological individual, but relating to other people in a community. In a later work on knowledge, she defines knowledge as the mental grasping of “something that has not been grasped before” and says that “all knowledge is the act of a person” (Stein, 1993). In this section we have briefly introduced the concepts of degrees of knowledge and the qualitative variation of consciousness. Of particular interest in this paper is Stein’s concept of the “I” and the living body which has a “zero-point of orientation” to which the body and everything outside of it is related (W. Stein, 1989). This concept, I argue, is supportive of the idea of a philosophical reference point that I introduced in section two. Next, there will be a discussion of the implications for these epistemological constructs in relation to the main theme of the paper: providing a philosophical basis for using both quantitative and qualitative research methods.

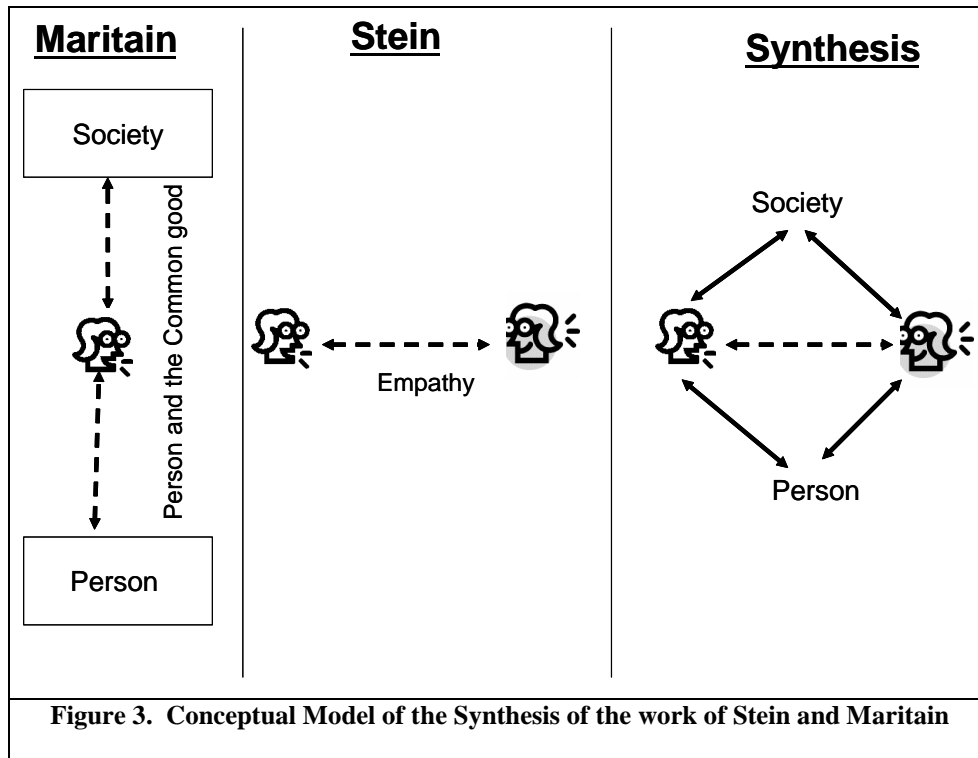
5 Mapping the IS research journey

Figure 2 attempts to capture a conceptual model of an IS research journey that replaces the static IS World model of Figure 1 with one that better reflects the dynamics of real-world philosophical debate. Furthermore, the model aims to address the root cause of the philosophical problems in the IS discipline discussed in the introduction to this paper and is also intended as a response to Weber’s hope that his comments “will motivate more discussion and debate”.

Here the journey starts in the expansive universe of philosophy with the research approach resulting from the voyage. The expedition is not straightforward and is an iterative process that can change over time and the challenges presented by research questions. Furthermore, it takes into consideration that a philosopher's life-work can be viewed more as an orbit than an organic growth. Positions normally change and themes can be returned to at various stages. For example, this paper will advocate in section 6.6 a return to the phenomenological realism of the early Husserl to provide impetus for new insights into the positivist-interpretivist debate. However, as the illustration is a 2-D approximation of a 3-D reality, it consequently has many limitations.



The second graphic in figure 3 attempts to illustrate a synthesis of the work of Stein and Maritain. This is a preliminary view and intended to stimulate debate and future work on how to accommodate both schemas.



Now I will examine some of the implications of my journey for information systems research which imply areas where future expeditions could be profitable.

6 Implication of the Journey for the IS Research Agenda

A research agenda provides the impetus for planning and developing more detailed studies of a particular area. Based on my journey and Philosophical guides, I now propose the examination of the following issues that could contribute to the diversification of the IS research agenda:

6.1 New voices to diversify the IS research.

This paper introduces the work of Edith Stein to the IS research community as a major contribution to the original impulse of Phenomenology, a discipline which is having noteworthy influence on debates within the field (Ciborra, 2000a, 2000b, 2002; Fernandes, 2005). Stein was recognised by Husserl as one of his most prominent and gifted students. The paper also argues that voice of Jacques Maritain on the primacy of the knowing person and the importance of the common good should be heard. This position contrasts with references to the ubiquitous human “actor” who has the same importance as all the other actors, animate and inanimate in a network. These

philosophers provide very different ontological and epistemological perspective than presently found in the IS literature.

6.2 Maritain's Common Good

The debate on the importance of the common good is an ancient one, with Cicero's works, *De legibus* and *De republica*, being "famous for their assertion on human rights and the brotherhood of man" (Gashin, 2005). According to Musa, a major theme throughout the writings of Dante was that "the man who does not contribute to the common good fails sadly in his duty" (Musa, 1984). An objective by the IS research community to contribute to the common good may perhaps be a source of motivation for PhD students and help address Weber's concerns.

Now we will present some aspect of the common good as outlined in Maritain's major thesis on the subject (2002):

- the personality of the human person tends by nature to communion and has by nature an inner urge to the communication of knowledge (p 47).
- to reach a certain degree of elevation in knowledge people need an education and the help of others (p 48).
- to avoid the extremes of communism and totalitarianism; this good is common to both the whole and the parts into which it flows back and which, in turn, must benefit from it (p 51).
- the common good is not just a system of advantages and utilities but a good in itself or a the Ancients expressed it, a *bonum honestum* (p 53).
- it is in the nature of things that man, as part of society, should be ordained to the common good and the common work for which the members of the city are assembled (p.65).
- man finds himself by subordinating himself to the group and the group attains its goal only by serving man (p 66)

6.3 Stein's work on empathy

Recently the concept of empathy has come to the fore in a number of debates in what Habermas might describe as the public sphere (Bohman, 2005). Barack Obama's challenge to Northwestern University graduates to cultivate empathy is an example

(Obama, 2006). Significantly, the European Manager of the Indian IT company, has attributed the importance of “empathy” in customer relations as one of the main reasons that his company is now offshoring, (or should that be reverse-shoring) jobs to Northern Ireland (Casey, 2006). Returning to the literature, Susman and Evered’s (1978) influential paper on action research proposed that “empathy, ..may be the most effective means for making the theoretical or practical knowledge the researcher possesses really useful and accepted by clients”. More recently, Ciborra (2002) has identified empathy as one of the antidotes to the “Krisis” in information systems research. Here the author will let him speak on the subject of empathy (Ciborra, 2002, p. 25).

We can envisage an alternative approach to overcome the crisis generated by an overdose of methodologies. Let us go back to the basics and encounter the world as it presents itself in our everyday experience. We rely on evidence, intuition and empathy.

Leonard (1998; 1997) has proposed “empathic design” as an approach to create “product or service concepts based on a deep (empathic) understanding of unarticulated user needs”. Additionally, we would argue that the exploration of empathy could contribute to Kelly’s (2005) call for opening up new frontiers in theorization through such endeavours as the synthesis of “reification and participation” and promoting a vision of ICT as serving the “personal reciprocity implicit in networks of personal relations”. However, it should be noted that some researchers have discussed the danger of people over-empathizing with ICT, especially in relation to vulnerable populations such as children and people with special needs (Pettersson, 2002).

6.4 Person as the reference point of IS research

Ciborra argues that position of information and communications technology (ICT) in organisations requires a shift from the present focus on the “scientific paradigm” to an “alternative centre of gravity: human existence in everyday life”. Furthermore he described this re-alignment in terms of a Copernican revolution in the way organisations introduce and use ICT (Ciborra 2002). There has also been a special issue in the Scandinavian Journal of information on the topic of the relationship of information technology to human activity (Bertelsen & Bødker, 2000). Perhaps to, it is time to heed the call of Max Scheler that there is a need to move from the “Philosophy of the Mind” to the “Philosophy of the Heart”.

6.5 Ontological Commitment

Kerlin laments the introduction of the “deadly impersonal” third person to debates in philosophy and business ethics “under the influence of the social sciences”. Furthermore he argues that the first person facilitates lively writing and avoids any “hesitation to state positions”(Kerlin, 1997). Perhaps the IS community should request that at least the philosophical chapters of IS theses are written in the first person to encourage PhD students to take responsibility for presenting their personal lens and ontological commitment.

6.6 Rediscovering Phenomenological realism

One of the main arguments of this study is for a rediscovery of the phenomenological realism of the early Husserl who moved to a position of idealism later in his work. The aim of this section is to explain these concepts and place them within current philosophical debates. Williamson (2005) explains realism as primarily a direction not a position and contrasts it with anti-realism. He states that to believe that something “is somehow mind independent is to move in a realist direction; to deny it is to move in the opposite direction (p 787). Scruton (2004) points out that until recently philosophers such as Kant would have contrasted realism with idealism. Similarly he explains that a realist considers a phenomenon to exist independently of our “thoughts about it” and “our experience of it” (p 31). According to Boylan & O’Gorman (1995), the extraordinary rise of scientific realism during the 1970s “sounded the death knell of logical positivism” (p 130) and replaced it as the dominant philosophy of science. The scientific realist approach was a reaction to both the logical positivists and the relativist theories proposed by among others, Kuhn. They go on to explain the realist picture of the world as “like the face of a clock which has hidden mechanisms generating or causing the observable events on its face” (p 3). Furthermore the underpinning of information systems research has recently been examined using a realist lens –in particular that of critical realism (Carlsson, 2005; Mingers, 2000; J. Mingers, 2004; John Mingers, 2004).

Moran (2000) explains that Husserl’s early important work *Logical Investigations* was a realist phenomenology that attracted many bright students to his classes in Göttingen such as Roman Ingarden, Hedwig Conrad-Martius and Edith Stein. The other main

leader of the phenomenological movement, Alexander Pfänder in Munich, also proposed a realist outlook. These philosophers were disappointed at Husserl's turning to idealism in his later career in Fribourg. To explain further the idea of phenomenological realism Sawicki's overview of Edith Stein's four "phenomenal divisions of activity within any human individual: the physical, the sensate, the mental and the personal" will be presented (Sawicki, 2000, p. xv). Moreover, all these layers are to be considered as localised within the human body but must be considered as "porous and as blending into one another" (p xv). The following table shows these layers.

Table 1: Phenomenal divisions within the individual- (Sawicki, 2000)

phenomenal "realms"	"layer" of human being
the physical	Matter, physical components of the body
the sensory, the sensate	sentience, the living responsive body
the mental, the intellectual	Un-individuated mind, intelligence, spirit
the personal, the individual	individual person, unique personality.

In summary, phenomenological realism is a philosophical worldview that recognizes the existence of an external objective world that is, however, perceived and understood by means of the stream of experiences of a subject.

7 Conclusions

Markus & Saunders (2007, p. iv) in their call for more concepts and theories to stimulate IS research have specifically requested essays that explore the philosophical foundations on which IS theory and research is built. Furthermore this paper is a response to Weber's call for doctoral researchers to address and reflect deeply on the ontological and epistemological assumptions underpinning their work. It also accepts Myers' (1997) invitation for "further reflection and debate on the important subject of grounding ... research methodology" and the view of some scholars that the current lack of philosophical conviction is a threat to the integrity and creativity of IS research. The approach consisted of the author assuming the role of a reflective practitioner and employing an analogical narrative. The key result was the introduction of the work of two twentieth century philosophers whose ontological and epistemological viewpoints are grounded in the human person communicating with others. In this milieu, the person has individual human rights, exists in a community empathizing with others, and should be orientated to the common good. Furthermore these philosophers are new to the

information systems discourse. However the requirement to seek and defend a philosophical system will put onus on this aspect of the research apprenticeship and the requirement for the researcher to present a personal standpoint. Future work is required to provide a better synthesis of neo-Thomist and phenomenological approaches. Meanwhile it is hoped that this paper provides the basis for lively discussions in the restaurant at the end of the universe.

References

- Adams, D. (1992). *The Hitchhiker's Guide to the Galaxy* London: Pan Macmillan.
- AIS Research. (2013). Association for Information Systems Research Resources available on line through <http://home.aisnet.org/displaycommon.cfm?an=1&subarticlenbr=206> accessed March 2013. In.
- Baskerville, R., & Myers, M. D. (2004). Special Issue on Action Research in Information Systems: Making IS Research Relevant to Practice—Foreword. *MIS Quarterly*, 28, 329-335.
- Bergo, B. (2007). Emmanuel Levinas. In *The Stanford Encyclopedia of Philosophy (Spring 2007 Edition)*, Edward N. Zalta (ed.), forthcoming URL = <http://plato.stanford.edu/archives/spr2007/entries/levinas/>. .
- Bertelsen, O. W., & Bødker, S. (2000). INTRODUCTION: Information Technology in Human Activity," *Scandinavian Journal of Information Systems*: Available at: <http://aisel.aisnet.org/sjis/vol12/iss1/3> *Scandinavian Journal of Information Systems*, 12.
- Bogen, J. (2005). The Vienna Circle (Weiner Kreis). In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.
- Bohman, J. (1999). Critical Theory. In R. Audi (Ed.), *The Cambridge Dictionary of Philosophy*. New York Cambridge University Press.
- Bohman, J. (2005). Critical Theory. In *The Stanford Encyclopedia of Philosophy (Spring 2005 Edition)*, Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/spr2005/entries/critical-theory/>. .
- Boylan, T. A. (2007). Philosophy of Science Seminar for Doctoral Candidates. National University of Ireland, Galway.
- Boylan, T. A., & O’Gorman, P. F. (1995). *Beyond Rhetoric and Realism in Economics: Toward a reformulation of economic methodology*. London: Routledge.
- Butler, T. (1998). Towards a hermeneutic method for interpretive research in information systems. *Journal of Information Technology*, 13, 285-300.
- Carlsson, S. (2005). Developing Information Systems Design Knowledge: A Critical Realist Perspective. *The Electronic Journal of Business Research Methodology*, 3, 93-102, available online at www.ejbrm.com.
- Casey, C. (2006). Indian Companies help kick-start North's economy. In *The Irish Times*, Friday January 26th Dublin

- Chiang, A. C. (1984). *Fundamental methods of mathematical economics (3rd Edition)* (Third ed.). Auckland: McGraw-Hill.
- Ciborra, C. (2000a). A Critical Review of the Literature on the Management of the Corporate Information Infrastructure. In C. U. Ciborra (Ed.), *From Control to Drift : The Dynamics of Corporate Information Infrastructures* (pp. 15-40). Oxford: Oxford University Press.
- Ciborra, C. (2000b). *From Control to Drift : The Dynamics of Corporate Information Infrastructures*.
- Ciborra, C. (2002). *The Labyrinths of Information: Challenging the Wisdom of Systems*. Oxford: Oxford University Press.
- Ciborra, C., & Hanseth, O. (1998). From tool to Gestell: Agendas for managing the information infrastructure *Information Technology & People*, 11, 305-327.
- Coady, C. A. J. (2005). Berkeley, George. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.
- Costello, G. J., Cresham, M., & Donnellan, B. (2007). Empathy and Teamwork: Reflections on the Legacy of Claudio Ciborra through the Phenomenology of Edith Stein. In. *15th European Conference on Information Systems, St. Gallen, Switzerland, June 7-9, 2007*.
- Daintith, J., & Gjertsen, D. (1999). Oxford Dictionary of Scientists. In (Second Edition ed.). Oxford Oxford University Press.
- Davison, R. M., & Martinsons, M. G. (2011). Methodological practice and policy for organisationally and socially relevant IS research: an inclusive–exclusive perspective. *Journal of Information Technology*, 26, 288-293.
- de Lubac, H. (1950). *The drama of atheistic humanism (translated by Edith M. Riley)*. New York: Sheed & Ward.
- Denzin, N. K., & Lincoln, Y. S. (2008). *The Landscape of Qualitative Research: Thousand Oaks, Calif. : Sage Publications*.
- Dobson, P., & Love, P. (2004). Realist and Postmodernist Perspectives on Information Systems Research: points of connection. *Australasian Journal of Information Systems*, 12.
- Dube, L., & Pare, G. (2003). Rigor in information systems positivist case research: Current practices, trends, and recommendations. *MIS Quarterly*, 27, 597-635.
- Elveton, R. O. (1970). Introduction. In R. O. Elveton (Ed.), *The phenomenology of Husserl : selected critical readings / edited, translated, and with an intro. by R. O. Elveton* Quadrangle Books: Chicago
- Fernandes, K. J. (2005). Eureka moments in the works of Claudio Ciborra. *European Journal of Information Systems*, 14, 498–499.
- Feyerabend, P. K. (2005). philosophy: world and underworld. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.
- Fotion, N. (2005). Logical Positivism. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.
- Gashin, J. C. A. (2005). Cicero, Marcus Tullium. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.
- Goldman, A. (2005). knowledge. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.

- Grossmann, R. (2005). Phenomenology. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed., pp. 695-697). Oxford Oxford University Press.
- Hamlyn, D. W. (2005). Idealism, philosophical In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.
- Hatch, M. J., & Yanow, D. (2003). Organization theory as an interpretive science. In H. Tsoukas & C. Knudsen (Eds.), *The Oxford handbook of organization theory: Meta-theoretical perspectives* (pp. 63-87). New York: Oxford University Press.
- Hibbeler, R. C. (2004). *Engineering Mechanics: Dynamics SI Edition, 3rd Edition*. Jurong: Prentice Hall
- Hirschheim, R. A., Klein, H.-K., & Lyytinen, K. (1995). *Information systems development and data modeling : conceptual and philosophical foundations* Cambridge Cambridge University Press
- Honderich, T. (2005). The Oxford Companion to Philosophy. In (Second Edition ed.). Oxford Oxford University Press.
- ICS. (2007). On-line Review of "*Edith Stein: An Investigation Concerning the State Translated by Marianne Sawicki* "(available on line through <http://www.icspublications.org/>). In.
- Inwood, M. J. (2005a). The Frankfurt School. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.
- Inwood, M. J. (2005b). Heidegger, Martin. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed., pp. 371-375). Oxford Oxford University Press.
- Johnson, S. (2012). Society; Truth. In *The Samuel Johnson Sound Bite Page available on line through <http://www.samueljohnson.com/> accessed Jan 2012.*
- Kelly, S. (2005). New frontiers in the theorisation of ICT-mediated interaction? Exploring the implications of a situated learning epistemology. In *ICIS: International Conference on Information Systems 2005, December 11 - 14 : Las Vegas, Nevada*
- Kenny, A. (2010). *A New History of Western Philosophy*: Oxford University Press.
- Kerlin, M. J. (1997). Peter French, Corporate Ethics and The Wizard of Oz. *Journal of Business Ethics*, 16, 1431–1438.
- King, M. L. (1951). Jacques Maritain. In *The Papers of Martin Luther King, Jr. : Volume I: Called to Serve, January 1929-June 1951* , (available on-line through <http://www.stanford.edu/group/King/publications/>).
- Lacy, A. (2005). Positivism. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.
- Lauer, Q. (1965). *Phenomenology : its genesis and prospect*. New York Harper & Row.
- Lebech, M. (2004). Study Guide to Edith Stein's Philosophy of Psychology and the Humanities. In M. Lebech (Ed.), *Yearbook of the Irish Philosophical Society* (Vol. 4, pp. 40-76).
- Lee, A. (1989). A Scientific Methodology for MIS Case Studies. *MIS Quarterly March 1989*, 33-50
- Leonard, D. (1998). *Wellsprings of Knowledge: Building and Sustaining the Sources of Innovation*: Harvard Business School Press.

- Leonard, D. A., & Rayport, J. (1997). Spark Innovation Through Empathic Design." *Harvard Business Review*. *Harvard Business Review*, 75, 102-113.
- Lévinas, E. (1998). *Otherwise than being, or, Beyond essence* Pittsburgh, Pa.: Duquesne University Press.
- Lowe, E. J. (2005). being. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.
- Mangan, J., Chandra, L., & Bernard, G. (2004). Combining quantitative and qualitative methodologies in logistics research. *International Journal of Physical Distribution & Logistics Management*, 34, 565 – 578.
- Maritain, J. (1932). *An Introduction to Philosophy* (translated by E.I. Watkin). London: Sheed & Ward.
- Maritain, J. (1959). *Distinguish to unite, or, The degrees of knowledge / newly translated from the fourth French edition under the supervision of Gerald B. Phelan*. New York: Charles Scribner's Sons.
- Maritain, J. (2002). *The Person and The Common Good* (translated by John J. Fitzgerald): University of Notre Dame Press; New Impression edition (October 31, 1973)
- Markus, M. L., & Saunders, C. (2007). Looking for a Few Good Concepts...and Theories...for the Information Systems Field *MIS Quarterly*, 31, iii-vi.
- Mingers, J. (2000). The contribution of critical realism as an underpinning philosophy for OR/MS and systems. *Journal of the Operational Research Society*, 51, 1256-1270.
- Mingers, J. (2004). Re-establishing the Real: Critical Realism and Information Systems. In J. Mingers & L. Willcocks (Eds.), *Social Theory and Philosophy for Information Systems Research* (pp. 372-406). Chichester: Wiley.
- Mingers, J. (2004). Real-izing information systems: critical realism as an underpinning philosophy for information systems. *Information and Organization*, 14, 87–103.
- Moran, D. (2000). *Introduction to Phenomenology*. London ; New York :: Routledge.
- Musa, M. (1984). Introduction. In *The Divine Comedy: Volume 1: Inferno by Dante Aligheri translated by Mark Musa*: Penguin Classics
- Myers, M. D. (1997). Qualitative Research in Information Systems. *MIS Quarterly* (21:2), June 1997, pp. 241-242. *MISQ Discovery*, archival version, June 1997, http://www.misq.org/discovery/MISQD_isworld/. *MISQ Discovery*, updated version, last modified: www.qual.auckland.ac.nz.
- Nota, J. (1988). Edith Stein and Martin Heidegger. *Carmelite Studies*, 50-73.
- Obama, B. (2006). Obama Challenges Grads to Cultivate Empathy :Remarks of Senator Barack Obama to Northwestern graduates at 2006 Commencement: (available on-line through <http://www.northwestern.edu/newscenter/stories/2006/06/barack.html>). In.
- Pettersson, J. S. (2002). Visualising interactive graphics design for testing with users. *Digital Creativity*, 13, 144-156.
- Posselt, T. R. (2005). Edith Stein: The Life of a Philosopher and Carmelite. In Susanne M. Batzdorff, J. Koepfel & J. Sullivan (Eds.): ICS Publications.
- Priest, S. (2005). Honderich, Ted (1933-). In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.

- Remenyi, D., Money, A., Price, D., & Bannister, F. (2003). The Doctoral Viva: A Great Educational Experience or a Gun Fight at the OK Corral? *Irish Journal of Management*, 24, 105-116.
- Rescher, N. (1999). Idealism. In R. Audi (Ed.), *The Cambridge Dictionary of Philosophy* (pp. 915). New York Cambridge University Press.
- Rescher, N. (2005). pragmatism. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed., pp. 747-751). Oxford Oxford University Press.
- Richmond, S. (2005). empathy. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.
- Sawicki, M. (2000). Editor's Introduction. In Marianne Sawicki (Translator) and Mary-Catherine Baseheart (Translator) (Ed.), *Philosophy of Psychology and the Humanities, the Collected Works of Edith Stein* (pp. xi-xxiii). Washington D.C. : ICS Publications
- Schön, D. A. (1983). *The Reflective Practitioner: How Professionals Think in Action* New York: Basic Books.
- Scruton, R. (2004). *Modern Philosophy: An Introduction and Survey*. London: Pimlico.
- Smith, A. (1796). Book V, Chapter I: Of the Expences of the Sovereign or Commonwealth In *An Inquiry into the Nature and Causes of the Wealth of Nations* (available online through <http://www.econlib.org/LIBRARY/Smith/smWN.html>). London: Methuen and Co., Ltd., ed. Edwin Cannan, 1904. Fifth edition. .
- Sokolowski, R. (2000). *Introduction to Phenomenology*. Cambridge, UK ; New York :: Cambridge University Press.
- Stein, E. (1989). *On the Problem of Empathy (The collected works of Edith Stein; v. 3) - translated by Waltraut Stein, Ph.D.* Washington D.C. : ICS Publications.
- Stein, E. (1993). Knowledge, Truth, Being :translated by Walter Redmond (The collected works of Edith Stein; v. 8). In L.Gelber & M. Linssen (Eds.), *Knowledge and Faith*. Washington D.C. : ICS Publications.
- Stein, E. (2000). *Philosophy of Psychology and the Humanities* Washington D.C. : ICS Publications.
- Stein, W. (1989). Translators introduction. In *On the Problem of Empathy (The collected works of Edith Stein; v. 3) -translated by Waltraut Stein, Ph.D.* Washington D.C. : ICS Publications.
- Susman, G. I., & Evered, R. D. (1978). An Assessment of the Scientific Merits of Action Research. *Administrative Science Quarterly*, 23, 582-603.
- Sweet, W. (2004). Jacques Maritain In *The Stanford Encyclopedia of Philosophy* (Spring 2004 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/spr2004/entries/maritain/>. .
- Tan M., Raman K.Ss, & K-k, W. (2003). Implementing inter-organizational systems (IOS) for strategic advantage: a value-flow framework In *In Proceedings of the Eleventh European Conference on Information Systems (Ciborra CU, Mercurio R, de Marco M, Martinez M, Carignani A eds.)*, Naples, Italy.
- Teresia de Spiritu Sancto. (1952). *Edith Stein (translated from the German by Cecily Hastings and Donald Nicholl)*. London and New York: Sheed & Ward.
- Uebel, T. (1999). Vienna Circle. In R. Audi (Ed.), *The Cambridge Dictionary of Philosophy* (pp. 915). New York Cambridge University Press.
- Weber, R. (2003a). Editor's Comments : The Problem of the Problem *MIS Quarterly*, 27, iii-ix.

- Weber, R. (2003b). Editor's Comments : Theoretically Speaking. *MIS Quarterly*, 27, iii-xii.
- Williamson, T. (2005). realism and anti-realism. In T. Honderich (Ed.), *The Oxford Companion to Philosophy* (Second Edition ed.). Oxford Oxford University Press.
- Willmott, H. (2003). Organization theory as a critical science? Forms of analysis and 'new organizational forms' In H. Tsoukas & C. Knudsen (Eds.), *The Oxford handbook of organization theory: Meta-theoretical perspectives* (pp. 88-112). New York: Oxford University Press.