A Design Science Inspired Methodology to Critical Interpretive Research in IS – A Foucauldian Approach

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Abstract

This paper recommends a framework for conducting critical interpretive research in the design of IS solutions to social service problems. Developments in social media technologies provide the capacity for tackling social challenges through participative democracy in ways that were not practically possible previously. This capacity implies the increasing likelihood that seldom used research paradigms in IS will become more prominent. The proposed framework provides an approach specifically for researching the role of ICTs in the provision of social services in democracies. The social philosophical approach of the inquiry is founded on the works of Michel Foucault. Guided by design science, the framework recommends a pluralistic method incorporating 3 phases that entail critical research into social services, context-based technology evaluation and critical interpretive design and evaluation.

Introduction

Internet enabled systems have promoted the pervasive utilisation of ICTs in human community interactions and enterprises. At the turn of the new millennium, social media technologies had developed to a point where they could provide the means of computer mediated communications between so many people, through a common network; that the concepts of communities and community formation had practically evolved to include "virtual communities", as first conceived of by Howard Rheingold (1993). The formation of communities of affiliation and common interests, unrestricted by physical location and limited only by accessibility to communications infrastructures and devices, have been spurred on by the development of the complex, multi-faceted services that are social networking sites (SNSs). Whilst many of these services have achieved enormously popular appeal, society generally seems aware of their shortcomings through their potential for facilitating various forms of exploitation, abuse and the spreading of gossip. As a consequence of this intuitive lack of trust, utilisation of these platforms for needs that extend beyond the urge for social networking, such as the delivery of social services or the fostering and promotion of democratic practices, has been found wanting. The need for innovative research into

effectively harnessing the Internet and social media technologies to address specific social imperatives, rather than for simply providing channels for open discourse, appears evident from the dearth of complex social media artefacts serving the provisioning of social services. This perceived shortcoming motivates the quest for a new research approach to conducting design science in an IS context. The "Design Science Research Methodology" (DSRM) devised by Peffers et al (2008) has received wide acceptance in ICT artefact design. Numerous examples of adaptations of DSRM are available but none for research into artefact design in the social services context wherein critical theory is necessarily incorporated. Critical research is defined by the elements of critique and transformation in addition to interpretive research principles (Myers & Klein, 2011). Consequently, a research framework should seek to reveal transformational objectives that focus solutions on problems in the provision of a social service. The imperative to meet transformational objectives provides impetus for innovation in either the design of new artefacts or the application of existing artefacts. The absence of a framework for conducting critical research into the challenging interrelated diversity of disciplines arising from the Internet enabled nexus that facilitates the linking of communities to social services; is addressed in the research approach described in this paper.

A suitable social theory-based framework is required to to conduct the inquiry into social services. Upon evaluation of alternatives, and in spite of his works not recommending any specific methodology, the social theories of Foucault were deemed to be appropriate; for conducting effective inquiry for determining truth in a social services context within a democratic political dispensation and, for determining transformative practices that could lead to innovation and design of solutions.

The decisive factors in selecting Foucault were;

- Communities served by social services are typically large, wide-spread and diverse. As such, problems tend to be systemic rather than localised. The dimensions and diversity of communities therefore discount idiographic approaches such as case-study or action research as these would lack reliability due to the risk of producing results reflective of the localised rather than the systemic. Foucault's concept of *"discursive formations"* provides an appropriate strategy for collecting data on a social service subject that represents a systemic situation that may be topically diverse. These *"discursive formations"* provide structured information repositories from which truth may be drawn through analysis.

- Foucault's *"history of the present"* concept guides the interrogation of the history of the conflict between society and state, as it pertains to the current state of a social service. This wide ranging historical approach is more likely to produce reliable results on the formation of systemic problems evident in a contemporary situation than approaches applying a narrower time focus. His *"discursive formations"* provide for the sourcing of data in the form of literature from a wide variety of sources that facilitates the historical approach better than methods that impose a more restricted sourcing of data.

- Foucault's concepts of *state, society and the power relationships* between them provide an appropriate context for researching social services in a democracy where society grants the state power and trust, to consume public re-

sources, in the provisioning of services that society requires. The determination of truth through the critique of *discursive formations* that are reflective of the *power relationships* between the *state* and *society* pertaining to the *history of the present*; provides a theoretically and practically credible basis for conducting effective analysis of social services.

- Foucault's concept of *"regimes of practice"* provides a sound and intuitivly credible basis for determining practice-based solutions to guide innovation and design.

Guided by a form inspired by Foucault's social theories; this paper aims to recommend an approach to conducting research-based design for solutions to address the provision of social services through the enablement of participative democracy.

Participative Democracy

Many sources of reference claim that there is no universally accepted definition for democracy. However, there are two principles that many if not most definitions of democracy include; The first, is that all members of the society have equal access to power and the second, that all members enjoy universally recognized freedoms and liberties. A variety of democratic systems of government have sought to limit or qualify the access and rights of members of society to those democratic principles. In the recent past (2012), widely-spread revolts have erupted against dictatorial states and it appears evident that the utilisation of Internet enabled social media served to free the voices of societies and enabled public discourse in the pursuit of democratic freedoms. Hundreds of media articles have been written about the effect of social media in promoting what became known as the "Jasmine Revolution" (Search key: 'jasmine revolution social media'). However, the extent to which social media may promote democracy is contingent upon the willingness of states to desist from monitoring their citizens' communications through those selfsame media and allowing discourse free from censorship (Kyriakopoulou, 2011).

Subject to variations in the application and meaning of the basic principles ("equal access to power" and "individual freedoms and liberty"), there are many forms of democracy. Participative democracy, for example, is a form limited by the extent to which critical discourse may be conducted freely through the public sphere. Participative democracy is a combination of deliberative and representative democracy (Hacker & Van Dijk, 2000). Representative democracy is the model of articulating citizen demands through representation in the form of party-based parliamentary rule and functions primarily through elected representatives. Citizens express their preferences at elections, but policy is actually made by the representatives that the citizenry selects (Dalton et al, 2001). Deliberative democracy "promotes the Internet as the means for an expansion of the public sphere of rational-critical citizen discourse – discourse autonomous from state and corporate power through which public opinion may be formed that can hold official decision makers accountable" (Dahlberg, 2001). The extent to which numerous social interest groups and media organisations, from almost every country, continuously provide information regarding the state of democracy within their specific regions on a seemingly endless basis, is indicative of the prominence that the quest for democracy attains across the world (Google search key: "Democracy survey" yielded more than 64 million results, 2014). In countries that do

have democratically elected governments, the battle for democracy tends to shift from electoral democracy to democratic freedoms for individuals (Hacker & Van Dijk, 2000). As a result, the pursuit, research and analysis of democracy, continues to be a persisting preoccupation of human society. The ethical rationale underpinning this paper and the research approach it recommends; is a value position in support of participative democracy.

Recommended Research Framework

In order to conduct high quality research, the method chosen for the research must match the objectives of the research (Travis, 1999). The objective in this case may be broadly defined as finding solutions for effective provisioning of social services through participative democracy. A framework that is appropriate to the objective is recommended to provide structure to the research process. The quest for IS-based solutions to specific social service-based problems, are likely to incorporate innovation and design. Hence a design science approach is deemed an appropriate guideline. The appeal of the DSRM which has been devised specifically for IS research, is based on the propensity for IS research to transcend the boundaries of the IS discipline more often than not (Avison & Elliot, 2005) and in the absence of an accepted design science framework; paradigms and methods developed for other more established disciplines, are adopted to the detriment of IS as a discipline (Peffers et al., 2008). The meaning applied to the acronym "IS" in this paper, is based on an aggregation of definitions found for the term "Discipline of IS";

> "IS is; the practice of integrating ICT with humanity in a broad sense, unlimited by any type of organisation or categorisation of utility."

As such, IS research may overlap the hard sciences, economics and social sciences (Avison & Elliot, 2005). Understood in this context, there is often a natural inclination towards innovation and artefact design in IS. "Whereas natural sciences and social sciences try to understand reality, design science attempts to create things that serve human purposes" (Simon, 1969). The objectives of Design Science, as articulated by Henver et al., (2004), are to produce an "artefact created to address a problem" and is relevant to the solution of a "heretofore unsolved and important [business] problem" (Peffers et al., 2008).

The DSRM articulates a six step process for conducting design and development that comprise of the following;

- Problem identification and motivation – Defining the specific research problem and justifying the value of a solution.

- Define the objectives for a solution - Inferring the objectives of a solution from the problem definition and knowledge of what is possible and feasible.

- Design and development - Creating the artefact. Such artefacts are potentially constructs, models, methods, or instantiations (each defined broadly) or "new properties of technical, social, and/or informational resources". Conceptually, a design research artefact can be any designed object in which a research contribution is embedded in the design.

- Demonstration - Demonstrating the use of the artefact to solve one or more instances of the problem.

- Evaluation - Observing and measuring how well the artefact supports a solution to the problem.

- Communication - Communicating the problem and its importance, the artefact, its utility and novelty, the rigour of its design, and its effectiveness to researchers and other relevant audiences.

(Peffers et al., 2008).

The range of research methods in IS have typically spanned the spectrum from positivistic to interpretivistic (Travis, 1999) but the application of IS for solutions in social services introduces a critical research paradigm into the mix. IS Mixing of methods and paradigms leads to the adoption of a pluralist method (Mingers, 2001). This paper recommends an approach inspired by the application of DSRM for finding solutions to social services problems. The paper is organised to correspond sequentially with the first 3 steps recommended in the DSRM but only up to point of the solution design. Aside from recommending an application inspired by the DSRM in the social services context, the paper serves to guide a researcher in adopting a plurality of differing methods to undertake the research. A strong form of pluralist research (Mingers, 2001) is recommended because it is evident from the multifaceted nature of problems relating to the broad research topic of social services; that the scope would necessarily extend across disparate disciplines of any selected social service, information systems and sociology. As the recommended method demands the outcomes of one research activity to provide input to another research activity, there is a phased logic to the entire process. Added to subject complexity and the interdependence of its phases, is the recognition that any single research method would not suffice for the differing natures of the phases required to address the topics being researched. Each phase will therefore apply a method, or combination of methods, appropriate to that particular phase. Mingers (2001) provides two arguments that justify the use of the strong form; Firstly, is that the real world is ontologically stratified and differentiated, requiring multi-method research to deal effectively with the full richness of the real world. The second argument is that a research study is not usually a single, discrete event but a process that typically proceeds through a number of phases posing different tasks and problems for the researcher. Noting that some research methods tend to be more useful in relation to some phases than others; so the prospect of combining them has immediate appeal. Even where methods do perform similar functions, combining a range of approaches may well yield a better result (Mingers, 2001). This paper recommends a method encompassing 3 phases of interdependent research; each one applying its own methodological approach.

The diagram below, "Figure 1: Framework for Critical Interpretive IS Research" serves to illustrate the proposed method. Note the sequential adherence to DSRM is overlain by 3 methodological phases. Note also how the critical interpretive epistemology is maintained throughout by the thread of critical findings in the first phase providing data and influence to the subsequent phases.
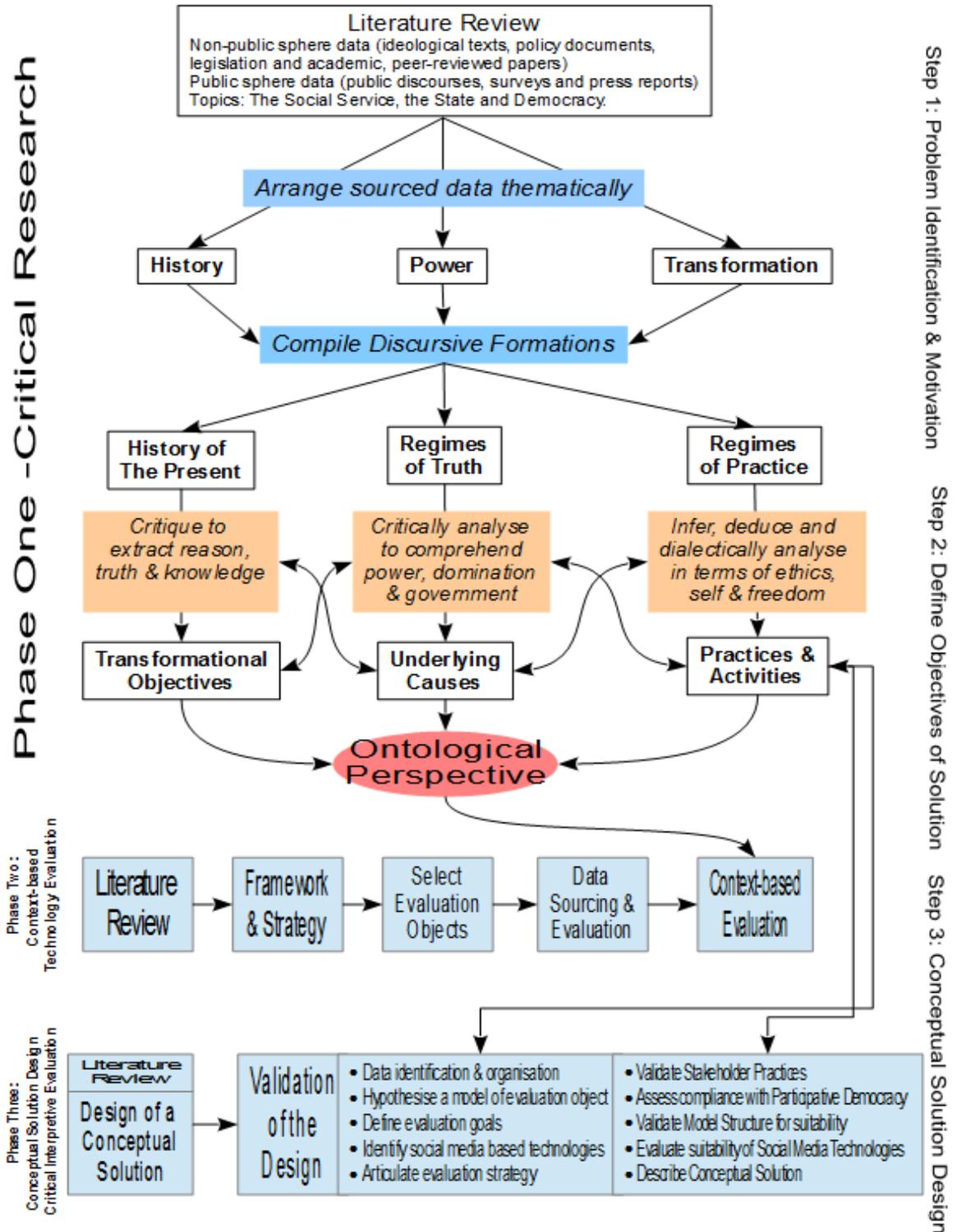
FRAMEWORK FOR CRITICAL INTERPRETIVE IS RESEARCH

Phase One - Critical Research

Step 1: Problem Identification & Motivation

Literature Review
Non-public sphere data (ideological texts, policy documents, legislation and academic, peer-reviewed papers)
Public sphere data (public discourses, surveys and press reports)
Topics: The Social Service, the State and Democracy.

Arrange sourced data thematically

History **Power** **Transformation**

Compile Discursive Formations

Step 2: Define Objectives of Solution

History of The Present	**Regimes of Truth**	**Regimes of Practice**
Critique to extract reason, truth & knowledge	*Critically analyse to comprehend power, domination & government*	*Infer, deduce and dialectically analyse in terms of ethics, self & freedom*
Transformational Objectives	**Underlying Causes**	**Practices & Activities**

Ontological Perspective

Step 3: Conceptual Solution Design

Phase Two: Context-based Technology Evaluation

Literature Review → Framework & Strategy → Select Evaluation Objects → Data Sourcing & Evaluation → Context-based Evaluation

Phase Three: Conceptual Solution Design Critical Interpretive Evaluation

Literature Review
Design of a Conceptual Solution → Validation of the Design

- Data identification & organisation
- Hypothesise a model of evaluation object
- Define evaluation goals
- Identify social media based technologies
- Articulate evaluation strategy

- Validate Stakeholder Practices
- Assess compliance with Participative Democracy
- Validate Model Structure for suitability
- Evaluate suitability of Social Media Technologies
- Describe Conceptual Solution

Figure 1: Framework for Critical Interpretive IS Research

Phase 1: SDRM Step 1: Problem Identification and Motivation & Step 2: Defining the Objectives of a Solution

Literature Review

Researchers cannot appropriate sophisticated research methods if their understanding of the phenomena they are investigating is rudimentary and unsystematic. It is imperative for researchers who may be venturing into areas beyond their normal areas of expertise, to build a sound foundation in any unfamiliar field that the research may take them. As the foundation that underpins the progress of the study (Boote & Beile, 2005), the review of prior research, especially in the fields associated with the delivery of social services that may be more diverse and unstructured than research related to more tightly defined disciplines, cannot be over-emphasised. A comprehensive assessment of reviewed literature should reveal perceived problems, goals, research questions, research methods, and validity threats (Maxwell, 2006). In the context of an IS research that extends into other disciplines, it is essential that the literature review serves to immerse the researcher in the relevant social service topic so that a foundation is laid through a complete understanding and a clear perception of the problems and social issues to be addressed by the study.

The general problem situation concerns the provision of a social service. Social services are services provided by the state or its agents, for the benefit of the citizens of the state or broader community residing under the authority of that state. These may typically include health, education, security, housing, social support and infrastructure provisioning, amongst others. The object of research, which may be any of the social services provided to a given community, will be referred to as "the social service" throughout the remainder of this paper. The objectives of the first 2 steps of DSRM, are to identify problems in a particular social service system and determine their underlying causes to gain understanding that will enable the justification of solutions (Peffers et al., 2008). The topic of study defines these steps as critical research. "Walsham (1993) and Boje (2001) remind us that critical theory should be carefully distinguished from both positivism and interpretivism as they tend to focus on description and understanding rather than on emancipation and the importance of values and assumptions at the individual level" (Brooke, 2002). The requirement of critical theory demands that emancipation is the distinguishing feature of the research (Dean[1], 1994). The desire of critical research is to expose inadequacies in society and to reflect upon emancipation from those inadequacies (Brooke, 2002). These 2 steps require a theoretical framework that is applicable to critical research. The form of the framework would be dependent upon the social theories being pursued. Taking a cue from Myers & Klein (2011), the works of 3 social philosophers who are commonly referred to in critical research in the IS field, namely Bourdieu, Foucault and Habermas, were considered. For reasons relating to the dimensions and diversity of communities served by social services, the relationship between the state and society in democratic countries, the conceptual approach to determining truth and the means of determining effective practices for transformation; the social theories of Foucault are adopted.

Foucault's social philosophies of *discourse*; *archaeology and genealogy of knowledge, and panopticon* (Myers & Klein, 2011) demand detailed historical studies

of the objects of research to reveal the interdependence of knowledge and power in discursive social practices. However, Foucault does not recommend a particular methodological approach or framework but his concepts of *history of the present*, *discursive formations*, *regimes of truth* and *regimes of practice* (Dean[1], 1994; Flyvbjerg, 1998; Myers & Klein, 2011) serve to inform the approach of the framework recommended in this paper, when informed by the context provided by Foucault's concepts of *power, the state* and *society.* The following paragraphs provide instruction concerning the organisation and analysis of *discursive formations* in accordance with an application of the social theories of Foucault;

In compliance with the requirements of critical research, the elements of insight, critique of power structures and transformation for social benefit (Myers & Klein, 2011) need to be addressed in any framework adopted or devised for this direction of study. The shape of the framework would necessarily be influenced by assessment of those factors that would comprise any typical research framework;

- Firstly, the epistemological focus of the research. The Foucauldian theory referred to as *"history of the present"* obtains insight and understanding through interrogation of the historical progress of state authority exercising powers in a process of perpetual conflict with society. History extends to the present and the analysis of *"discursive formations"* that reflect the conflicts over time, in the exercising of power, are analysed to reveal the underlying causes of problems existing in the present.

- Secondly, the sourcing of data. The meaning of discourse in Foucault's theories refers to an extended piece of text (written or verbal) that is governed by rules and conventions of which the user is largely unconscious and influences the rules of thought of various *"discursive formations"* (Myers & Kleyn, 2011). In Foucault's view, the discourse includes academic research, legislation and philosophical and ideological texts as well as discourse in the public sphere.

- Thirdly, the organisation of the data. Foucault's method known as the *"archaeology of knowledge"*, whereby examining the discursive traces left by the past in order to understand the processes that have led to what we are today (Foucault, 1972). In Foucault's theory, the general context of archaeology is that of a history of the present. The *"history of the present"* may be loosely characterised by its use of historical resources to reflect upon the contingency, singularity, interconnections, and potentialities of the diverse trajectories of those elements which compose present social arrangements and experience (Dean[1], 1994). Extracting the truth about a prevailing situation requires the compilation of *"discursive formations"* of texts reflecting the motivation and exercising of state powers that may reveal the *"regimes of truth"*. Data concerning social practices that may empower society to emancipate itself from any adverse effects and conditions resulting from either the imposition of state powers or the failure of states to exercise their powers; are gathered to inform *"regimes of practice"*. The sourced data is therefore categorised into the three interrelated themes required to perform a Foucauldian critical analysis; history, power structures and transformation for social emancipation (Myers & Klein, 2011). This organisation of data facilitates an analysis to

challenge "every abuse of power, whoever the authors, whoever the victims (Miller, 1993; Flyvbjerg, 1998) and in this way "to give new impetus, as far and as wide as possible, to the undefined work of freedom (Foucault, 1984)".

- The fourth is the focus of the data analysis. Foucault emphasises the analysis of modern forms of authority that constitutes the task of an on-going critical inquiry. "Foucault's historical analyses lead us to critically reflect upon the conditions of contemporary existence, both in the sense of the organizational practices we seek to explore and of our own research practices in doing so" (Brooke, 2002). Foucault's critical history forsakes the critique of the past in terms of the truth of the present but not the critical use of the history of reason to diagnose the practical issues, necessities, and limits, of the present (Dean[1], 1994). An emphasis on authority derived from the power of the state provides the means of exposing the underlying causes of a social problem situation. Foucault's method addresses questions to three broad domains: first, one of reason, truth, and knowledge; secondly, one of power, domination, and government; and finally, one of ethics, self, and freedom, collectively forming the 'Foucauldian triangle' of *truth, power* and *self* (Flynn 1987; Dean[1], 1994). Foucault's theories may be aligned with achieving the basic principles ("equal access to power" and "individual freedoms and liberty") of democracy, although he omits to espouse democracy as a social ideal.

Recommended Methodology

This methodology provides for a systematic, thematic, interrogation of non-public sphere data contained in ideological texts, policy documents, legislation and academic, peer-reviewed papers but also of public sphere data sourced from surveys and press reports. Inductive, deductive and dialectic reasoning is applied to varying degrees in critically analysing the data within the themes established for the specific purpose of the research.

Research Strategy

Following the critical research paradigm, the strategy for the first 2 steps of the DSRM, pursues a three part process that;

- interrogates history to gain insight to the present and exposes thereby, specific problems arising from past conflicts between the state and society and deriving from them, the relevant transformational objectives.

- exposes the power relationships between state & society; and critiques their philosophical motivations and the impacts of the policies spawned by them, to understand the underlying causes for the state of the present.

- identifies the route to transformation and the practices to achieve emancipation through democratic social action.

In order to comply with the methodology, the researcher follows each of the 3 parts of the strategy in the manner described hereafter;

Part One: in accordance with a Foucauldian view of critical analysis (Myers & Klein, 2011), a thematic review of data reflecting the historical and social context of the community consuming the social service; reveals an understanding of the historically foundational circumstances of the community. These historically founded circumstances provide insight into the social, economic and demographic challenges and disparities of the community and the impacts these have on the provisioning of the social service, in the present. Identifying issues that require redress, whether due to malfunction, corruption or omission, establishes the basis for deriving "transformational objectives" against which the effects of current policies and actions of the state in the provision of the social service, are assessed in a final analysis. The social service is contextualised within the concepts of the entities of the *state* and *society*. Through the establishment of the connection between historical factors and how they result in the present circumstances pertaining to the social service, the *truth* about the effects caused by the past and current exercising of *power* is exposed for analysis. These "transformational objectives" represent the problem identification and motivation. From this problem analysis; knowledge emerges that informs action that can lead to emancipation for the individual *self*.

Part Two: through analysis against the tenets of democratic practice, an identification and assessment of the effects of contending ideologies, political interests and corporate interests exercised within the state that may impact on the political formulation of policies governing the provision of the social service; a critique on the *power* structures that lie behind the current state of the social service system, is achieved. The aim of this phase is to challenge the policies that administer the social service and the supporting discourse emanating from them, that become accepted as *regimes of truth* through the exercising of the political power that imposes them (Foucault, 1972) and to reveal the consequential impact upon the social emancipation of the individual *self* within communities. The texts of relevant ideologies, strategies and the policies emanating from them, together form *discursive formations* about the rules of thought (Foucault, 1972) from which *regimes of truth* may be derived. This discursive formation as a collection of texts, represents the power at work (Myers & Klein, 2011) in the field of the social service and is in itself, empowering to those seeking to effect change. The extent to which democratic practices correlate with individual ("self") emancipation in the context of the social service, must be elucidated upon as a precursor to this analysis. Conclusions drawn from this critical analysis; provide insight into to the underlying causes for problems in the provision of the social service and equips the researcher with an informed ontological perspective to seek contextually relevant solutions.

Part Three: by analysing the policies, extended by the *power* of the *state,* that regulate the governance of the social service, the extent to which the governance either inhibits or promotes democratic participation by the community in the provision of the social service, the potential for practical individual emancipation and social transformation through the adoption of inclusive, participative democratic practices, is substantiated. Using a process of dialectic reasoning, possible solutions to the key problems identified are assessed against the ethics of participative democracy by community structures. The conclusions drawn from results represent an understanding of the community consuming the social service through the identification of the underlying causes of its problems and of the actions and activities, defined as "re-

gimes of practice", required to achieve transformation. These conclusions define the objectives of a solution to the "transformational objectives" determined in Part One.

Research Data Sourcing & Organisation

In order to achieve the strategy described above, the researcher must source and organise data as follows; The usually systemic nature of social service problems and the complex practices and structures used in their provisioning; imply that data sourced for the study be gathered from sources that are reflective of a wide spectrum of issues in order to gain an insight into all relevant aspects of the service as a whole. The factors should include historical and current policies governing the provision of the service and service performance. Data for this phase of research are sourced from academic papers, government policy documents, survey reports, the media and published reference works concerning the social service and published reference works on relevant ideological philosophies and social theories as well as texts of original ideological and philosophical treatises. As the ethical foundation of the research is "participative democracy", the ideological and philosophical texts about this value position must of necessity, be included. When dealing with widely distributed communities, caution should be exercised to avoid data obtained from sources reflecting collations and analysis of empirical data that is too parochially based in order to prevent results that are unduly skewed to deviate from the broader problem situations. A value judgement based on the perception of the size and locale of the community consuming the social service is required in this regard. The sourced data must be categorised into the three interrelated themes required to perform a Foucauldian critical analysis; history, power structures and transformation for social emancipation (Myers & Klein, 2011). Within each pre-defined theme, the data should also be sorted into relevant sub-themes, determined by the researcher and refined as the researcher's knowledge of the topic increases. This ensures that all necessary aspects of the study are adequately covered. Analysis of the data by sub-theme and source should provide an overview of the data and its contents within each of the major themes to indicate the efficiency and sufficiency of the data collection process.

Data Analysis

An Ontological Contextualisation of Civil Society and the State

A thorough grasp by the researcher, of the concepts of civil society, the state and the power relationships between them, are necessary for performing a critical enquiry. Civil society institutions are constituted by voluntary associations that exist outside of the sphere of the state and the economy. The empowerment of civil society is a central concern of democracy (Flyvbjerg, 1998). Fundamental to the understanding of the relationship between society and the state is the concept of conflict between them, whereby the state exercises its power through its ability to enforce control. This concept has assumed various interpretations in respect of the modern state. These interpretations vary from Corrigan & Sayers' (1985) view of benign submission by society to the state, to the insidious and confrontational tactics of the state described by Mann (1988) and Giddens (1985) (Dean[2], 1994).

Foucault perceives that administered state power are necessary conditions for the capitalist organisation of production and that relations of power and authority, working through disciplinary techniques, are *infrastructural powers* of the state. Foucault describes more of a 'state-effect' in which micro-macro relations are exercised in terms of *codification*. 'The state consists in the codification of a whole number of power relations which render its functioning possible (Foucault, 1980)', (Dean[2], 1994). The term *codification* identifies the state with law, the juridical instance and juridical discourse. *Codification* is a second-order phenomenon, presupposing a greater agency or power that organises and collects together the elements that will function as a code. Strategies are employed to render society and its various *micro-structures* amenable to government and administration, to render it governable and administrable (Dean[2], 1994).

History

History is researched in order to achieve an insight into effect that past policies have had on the development and social circumstances surrounding the social service topic of research and how their effects may persist to the present. Instead of seeking to use documents to reconstruct the historical reality that lies behind and beyond them, Foucault asserts that the route to defining a history is to bring the positive reality of discourse into focus and attempt the description of its systems of formation (Dean[1], 1994). In order to illustrate the formation of the present over time, a recommended technique is the compilation of sub-themes under the main theme of History, defined by their position on the timeline of the social service, from its inception if possible, to the present. This process can help to reveal the *history of the present* through a deductive process of recognition and assessment of causes and effects of historical events and circumstances. A useful technique for identifying sub-themes is to chart historical factors pertaining to the state, society and the social service, on a time-line beginning with the earliest records of the social service and concluding in the present. This suggested technique may be replaced with any other justified technique to meet the researcher's requirements for producing a valid analysis of the *history of the present.*

Power

Power structures are researched in order to assess who, within the structure of the state, wields what power, how the power is exercised in relation to contending social and political values and in what way it is exercised to create Foucault's *regimes of truth*. Firstly, under the theme of *power*, the *discursive formations* that shape rules of thought that motivate action in the exercise of power, are interrogated. Secondly, power, as it is exercised by the *state*, which itself consists in the codification of a whole number of power relations which render its functioning possible - Foucault, 1980" (Dean[2], 1994). Foucault describes these relations of power and authority, working through disciplinary techniques, as *infrastructural powers* of the state (Dean[2], 1994). The power for the *super-structure* of the state to dominate through the control of the *micro-structures* of individuals is examined in the context of the contending philosophies and ideologies of democracy on the one hand and any anti-democratic activities or policies exercised by the state, on the other. Anti-democratic activities and policies enable the state's inclination to undemocratically dominate and impose itself over the individual's right to self-determination. Thus the state brings

together, arranges, and fixes within that arrangement the micro-relations of power (Dean[2], 1994).

The following process is prescribed to analyse *power* through construction of the *discursive formations* that underpin the *regimes of truth* related to the social service system;

- The researcher must develop an ontological perspective of the motivations of the power relations between state and society by reading and understanding relevant "Primary Philosophical Texts". Those are texts written in the time and experience of the writers themselves. In the case of philosophical texts it would be the works of the originating philosophers. These documents inform the beliefs and motivations of adherents in their experience of power.

- Read and analyse;

  - "Secondary Philosophical Texts" which are texts that refer to, or are commentaries about, primary texts. Foucault's (1972) *Archaeology of Knowledge* refers to this distinction and the usage of primary and secondary texts. Secondary texts serve to add clarity and explanation to primary texts. The researcher is empowered through this process by developing a deeper and more extensive understanding of democracy and other contending philosophies.

  - "Political Doctrines" are the doctrines arising from the beliefs motivated by the philosophies followed by those wielding political power. Understanding political doctrines enables the researcher to identify the extent to which the state either conforms to or deviates from its stated philosophical positions and provides for a critical assessment of the extent to which these doctrines may contend with democratic principles. In the situation where the state comprises of an alliance of different political movements rather than a single politically homogeneous party, the texts contained in the political doctrines of those exercising power within an alliance may reveal the extent which contending philosophies dominate in the formulation of specific pieces of legislation.

  - "Legislation" is the instrument through which governments exercise power over their citizens. Foucault contends that the truths generated about 'society' and 'economy', are gradually enshrined in law, one of multiple regulatory means by which truth governs the population (Bastalich, 2009). The researcher assesses the legislations' compliance with democratic principles. Where contradictions are exposed in adherence to democratic principles between different pieces of legislation that impact on the social service, underlying conflicts in ideology are indicated. The reasons for these contradictions should be identified by the researcher in order to obtain a complete understanding of the underlying causes for impediments to democratic practices.

  - "Empirical Research" into all relevant aspects of the social service. As the first phase of analysis reveals the "transformational objec-

tives" pertaining to the social service, the researcher would be guided to uncover empirical research into the issues relating to those "transformational objectives". Similarly, in the second phase of the research, findings may be made that motivate further data collection into texts and research pertaining to the exercising of power by the state and conflicts with democratic principles. In a hermeneutic cycle, the analysis process promotes deeper research and the seeking of further data until the point is reached that the researcher attains a level of certainty that this critical interpretive analysis provides a well-founded and defensible representation of the true situation pertaining to the social service.

It is recommended that the analysis is presented in a tabulated form that provides a clear illustration of the processes applied. A critical interrogation of ideologically imposed policies and doctrine on the provisioning of the social service must be performed in order to determine the extent to which policies may have been spawned under the influence of anti-democratic influences on the one hand and to assess the extent to which they comply with the tenets of democracy, on the other. Through the assessment of the impact of policies on the functioning and performance of the social service, conclusions may be drawn regarding the impact of the power of anti-democratic influences on the democratic functioning of institutions of the state and society.

The analysis should categorise relevant policies through processes that identify the political influence within the state that provides the ideological basis for each policy. A critical and reflexive assessment of each policy's compliance with democratic principles is followed by a deductive assessment of the impacts of those policies on the functioning of the social service. Conclusions may then be drawn regarding the extent to which powers exercised by the state may serve to limit a community's access to democratic practices and processes in the consumption of the social service. Thus, the research problem may be defined and the value of a solution justified.

Transformation

Transformation is researched in order to assess practices that may be adopted by society to effect social emancipation for the individual by addressing "transformational objectives". The preceding analytical processes would identify the desired outcomes of these practices in the form of solutions to transformational objective and the extent to which the state inhibits their adoption and success. Foucault (1981) refers to "regimes of practice" in this regard as organised systems of practices rationalised according to particular forms of knowledge.

> "the history of a morality has to take into account the different realities that are covered by the term. A history of 'moral behaviours' would study the extent to which actions of certain individuals or groups are consistent with rules and values that are prescribed for them by various agencies… a history of 'codes' would analyse the different systems of rules and values that are operative in a given society or group… a history of the way in which individuals are urged to constitute themselves as subjects of moral conduct would be

concerned with the models proposed for setting up and developing relationships with the self, for self-reflection, self-knowledge, self-examination, for the decipherment of the self by oneself, for the transformations that one seeks to accomplish with oneself as object" (Foucault, 1985).

The final step in determining the route to transformation through participative democracy is an act of validation of the adequacy of practices derived for the successful provisioning and consumption of the social service. The researcher must engage once more in a dialectic process whereby the following questions are posed against each of the "transformational objectives";

a) What factors inhibit the attainment of the objective?

b) What specific actions by the community and governance structures would overcome the inhibiting factors?

The test is to determine whether the responses to the second question may be provided in terms of the "effective practices for governance of the social service" and any specific actions required to give effect to them. These practices and actions represent the practical means to achieving the teleological outcomes through democratic participation by the community in the social service. These practices and actions define the means to a solution, in fulfilment of the second step of the DSRM.

An analytic of practices can thus be worked out along four dimensions or forms of knowledge according to Foucault (1985) (Dean[3], 1994):

1. An ontological dimension, of what we seek to govern in ourselves or others by means of this practice.

2. A deontological dimension, of what we seek to produce in ourselves and others when governing this element.

3. An ascetic dimension, of how we govern this element, with what techniques and means. This would be a worldly asceticism as postulated by Max Weber (1905) as a practice of discipline and restraint in the pursuit of salvation or liberation where "the highest form of moral obligations of the individual is to fulfil his duty in worldly affairs (Giddens & Held, 1982).

4. A teleological dimension, of the aim of these practices, of the kind of world we hope to achieve by them, of the kind of beings we aspire to be (Dean[3], 1994).

The analysis of the structure and methods of community participation in the social service is therefore shaped and rationalised in accordance with ontological, deontological, ascetic and teleological perspectives;

- The ontological basis, meaning the specification of a conceptualisation (Gruber, 1993), for adopting any defined practices or structures for effectively accessing a social service; is derived deductively and by inference from an analysis based on a critical comparison of the established practices and structures for accessing the social service, against local and international research into similar structures and practices relating to similar services. This comparison of established governance practices pertaining to the social service against international and local best practices; can lead to a determination of

the value and applicability of established practices to the community and identify shortcomings. The analysis should thereby produce an illustration of a conceptualisation of a structure suitable for enabling community access to the social service and be able to expand on the causes and effects of specific practices on the provisioning of the social service to the community.

- A deontological perspective, which aims to reveal the extent to which the state and communities, through their rules, regulations and norms, promote their moral obligation of enabling the social service; is sought through analysing the impacts of legislation by the state on the capacity of the providers and consumers of the social service to engage in practices that may achieve "transformational objectives". A dialectic process is recommended whereby assessments are made of the means provided through various policies to answer the questions posed by the "transformational objectives". This analysis would provide a critique of the extent to which ideologically inspired legislation serves to undermine the effectiveness of practices adopted for the provisioning of the social service. The analysis would further expose the negative impacts arising from any centrally imposed, non-democratic policies, on the attainment of the "transformational objectives". Democracy and democratic participation are very much part of the decentralisation discourse. In pursuing decentralisation in the service of democracy, this approach to the study aligns itself with the Universal Declaration on Democracy (UDD), which states that:

> Democratic institutions and processes must also foster decentralised local and regional government and administration, which is a right and a necessity, and which makes it possible to broaden the base of public participation. (UDD 1997: Para 23)

- An ascetic perspective of the social service is sought, which in this instance refers to an attitude of worldly asceticism by communities, to acquire the benefits of the social service. By deducing which specific activities may be adopted by committed (disciplined, restrained and prepared to undertake ascetic self-denial if necessary) communities to achieve transformation and by establishing to what extent these activities are permissible by the state, through a process of matching them to enabling clauses within any democratically inspired legislations, the ascetic perspective of adopted practices is analysed. If the analysis reveals state imposed barriers to achieving transformation through legislation designed to inhibit fair and efficient access to the social service; an alternative must be sought that identifies how participative democratic activities within civil society may be able to circumvent the effects of stifling policies. Caution must be exercised to take cognisance of inequalities within the communities, of a socio-political and socio-economic nature, that may impact on a community's capacity to adopt recommended practices. Similarly, legislation may be adequate but the state's agents may not be compliant with the legislative intent for reasons of non-capacity or corruption. The presence of such factors, provide qualifying data to the ascetic perspective of practices. Again, a tabulated representation of the relationship between "transformational objectives", legislation governing the social service and the tenets of democratic practice is recommended to illustrate the pro-

cesses followed in reaching conclusions. The analysis is deductive and dialectic.

- Finally in the quest for transformation, a teleological perspective is sought through identifying specific practices for accessing the benefits of the social service to give effect to the kind of world that we hope to achieve through them. These practices are selected and justified in terms of the preceding analytical processes of the practices. A teleological perspective of the provisioning and consumption of the social service is pursued by assessing the factors which inhibit the attainment of "transformational objectives" to achieve a better society, and making a determination about specific activities that may overcome those inhibiting factors. Through a process of dialectic reasoning, the previously identified factors of obstructive legislation, socio-political and socio-economic circumstances, are considered and assessed in order to determine what actions by communities would be most appropriate for achieving "transformational objectives". This analysis is intended to illustrate how adherence to democratically founded practices could empower communities, enabled by appropriate communications and collaboration systems, to achieve transformation for an improvement in their social circumstances. It is recommended that the researcher firstly establishes a set of practices that may be considered generally applicable practices based upon the pragmatic use of information and communication resources, whether electronic or not, to effect the establishment of democratically functioning social services. The epistemological basis for these practices are determined firstly; by reflecting on what kind of social service governance structures may be effective and secondly; reflecting on how communities should go about establishing them. The responses to these reflections are necessarily biased by the ethical rationale of the study which is a value position in support of participative democracy. Therefore, generally applicable practices should be;

- practices that dictate the establishment of service governance structures that enable the adoption of democratic principles and practice.

- practices that promote the implementation of democratic processes involving dissemination of information, opening channels for community discourse and inviting and encouraging community collaboration (Dahlberg, 2001), (Hacker & Van Dijk, 2000), (Kyriakopoulou, 2011).

Framed within the context provided by the generally applicable practices; the researcher should follow a process of dialectic reasoning, whereby the researcher poses questions and provides well-reasoned answers that reflect the researcher's own knowledge and perceptions about the social service and the circumstances and legislative framework surrounding it. The questions posed should interrogate the methods and structures required to add effect to the generally applicable practices in order to define practical steps for achieving teleological practices. In a 2 step process; the researcher should firstly pose relevant questions with a substantiated rational basis for each one of them, and provide answers to each of the questions, again with supporting rationalisations. These responses would be "effective practices for governance of the social service".

Step 3: Design of a Conceptual Solution.

This step is limited to the processes deployed to achieve a conceptual design of a solution. The development of an artefact is beyond the scope of the proposed framework. The objective is to determine the features that would characterise an appropriately functioning, Internet enabled artefact, designed to promote the democratic participation of communities consuming the social service. It therefore concerns the design characteristics of an effective solution. Two possible routes to meeting the objective are the adaptation of an existing artefact or the design of a new artefact. If it were found that a feasible, potential solution already exists that might meet the needs of the provisioning of the social service; the focus would concern issues of design of the solution through innovative adaptation and deployment. In the absence of a feasible, established solution, the focus would concern innovation in the design of a new artefact. In either case, whether innovative adaptation and deployment or innovative design, the solution would have to function in a public or social service context. A social services context is fundamentally different from the accepted social community contexts, based as they are on networks of friends or common affiliations, typically enabled by the popular social media services. A new community context, defined by the social service, would have to be identified along with the questions as to what functions and design features are required of a solution to meet the needs of that social service-based community. Innovation is always associated with change, uncertainty and risk. By definition, innovation is unsettling and upsets people's habits. However, this could imply that innovation is unintended and comes out of the blue, whereas in reality it can be intentional, prepared and organized to anticipate risks. (Le Masson et al., 2010). In applying this methodology, the preceding phase would establish a complete understanding of the situation and circumstances of the social service-based challenges and an informed and reasoned approach to how the challenges may be met by specific action. The acts of innovation are therefore focused and intentional. In the next phase of the methodology; the researcher embarks on a quest for solutions that involve identification and assessment of existing artefacts in accordance with criteria derived from the preceding phase. In the final phase of the methodology; imagination and innovation, supported by the researcher's capacity and understanding of applicable technologies, would be applied to either the conceptual adaptation and deployment of established artefacts or the conceptual design of new artefacts to meet the required actions.

Phase 2: Evaluating Existing Solutions

The preceding 2 steps of the DSRM establish the context of the social service within the community, how it functions and the factors that inhibit its provisioning and effect. On the presumption that a pre-existing solution or partial solution would provide a swifter and more feasible route to achieving the desired social transformation, the execution of a context-based evaluation model for establishing the feasibility of an existing solution is recommended. This second phase could be conducted neither in parallel nor independently of the first phase because evaluation criteria arise from the research into the social service-based community, performed in phase one. Although inclusion of data pertaining to the communities in the evaluation process provides an idiographic perspective to the research, the application of either action research (Bas-

kerville, 1999) or case study research (Benbasat et al, 1987) methods in this phase are inhibited by the fact that this evaluation would likely precede the formation of an Internet-based community that is representative of the social service-based community, therefore an opportunity for participation by the subjects of the research could not be relied upon. The research therefore adopts a context-based technology evaluation (Lewis & Wrage ,2005) wherein the researcher's ontological perspective is informed by the research into the social service-based community completed in phase one. The recommended approach to the evaluation encompasses;

Literature Review.

The researcher should ensure that topics concerning social media concepts, enabling technologies and their application in social networks are adequately covered to gain an in depth understanding of their effect on community formation and their potential to facilitate democratic behaviours.

Establish an Evaluation Framework.

Any framework adopted or devised by the researcher to conduct a context-based evaluation should be interrogated subjectively to test its appropriateness for; a research question derived from the researcher's ontological perspective of the social service, the understanding of practices and the activities of the community to meet their transformational objectives.

Adopt an Evaluation Strategy.

Methods for selecting an ICT evaluation strategy may be obtained from various academic resources such as those developed by Cronholm & Goldkuhl (2003) and Macintosh & Whyte (2008), amongst others. Justify the strategy adopted.

Justify the Objects of the Evaluation.

Provide an explanation of the selection of specific social media artefacts chosen for the evaluation.

Data.

Explain the sourcing of data and the method of analysis prior to detailing the execution of the evaluation.

Evaluation Process.

Ontological and epistemological perspectives of the evaluation are established through the compilation respectively, of a list of evaluation criteria and the allocation of weightings to the criteria to reflect the relevance of each criterion to the realities of the community consuming the social service. The criteria should meet, from the researcher's perspective of the community, a test of the capacity of the artefact to promote democratic practices and to provide trusted and secure channels for community discourse. These would be a test of fundamental suitability. The weighting of these criteria would provide a proportional bias to each criterion to align it to the re-

searcher's perspective of the realities of the situation and circumstances pertaining to the social service.

The execution of the analysis through evaluation should be detailed and the findings and outcomes presented. As this evaluation is focused upon the phenomena of social media artefacts as they could be utilised in the context of a social service-based community, the researcher pursues the phenomenological approach to the evaluation wherein the study of structures of consciousness as experienced from the first-person point of view (Stanford School of Philosophy), is adopted. The aim of the researcher is to describe as accurately as possible the phenomenon, refraining from any pre-given framework, but remaining true to the facts (Giorgi, 1997). The phenomena, social media artefacts, are empirically tested against the criteria and allotted numerical ratings for each result to arrive at a score per criterion per artefact. Weightings would be applied to the scores in order to calculate a set of results.

As the evaluation is repeated across a selected set of artefacts, a hermeneutic cycle is established. The philosophical base of interpretive research is hermeneutics and phenomenology (Boland, 1985), (Myers, 1997). Interpretive methods of research in IS are "aimed at producing an understanding of the context of the information system, and the process whereby the information system influences and is influenced by the context (Walsham, 1993)" (Myers, 1997). The mixing of positivist and interpretivist approaches in the research method is adopted because it is the best and most reliable method to produce the desired outcomes in the circumstances of the research where the observer and participant are one and the same. This pragmatic approach justifies the mixing of paradigms (Johnson & Onwuegbuzie , 2004).

Phase 3: Developing a Conceptual Design of a Solution

The objective is to achieve a conceptual design of a social media-based artefact that could serve the needs of a social service-based community, by determining what functions and design features are required of an artefact to generate the social capital benefits that would motivate the social service-based community to adopt it.

Literature Review.

A review of literature on community action to generate social capital benefits, including participative democracy, would inform the attributes and characteristics of a conceptual design of an artefact. The challenge presented by participative democracy is generally seen in its practical application (Dalton et al, 2001). Social media technologies provide the means of overcoming the practical difficulties of participative democracy (Hacker & Van Dijk, 2000; Dahlberg, 2001; Kyriakopoulou, 2011). Effective knowledge sharing within communities can be achieved when the medium used encompasses active feedback mechanisms. Community involvement through a knowledge sharing and collaboration platform, as are typically provided by social media, can enable democratic mechanisms (Hacker & Van Dijk, 2000; Tiwani & Bush, 2001). The review should also empower the researcher to deal with concepts in the design that impact upon social and community behaviour that give effect to democracy. The facilitation of democracy enabling mechanisms of behaviour is imperative in any conceptual solution. These are essentially;

- Information provision / Access to information

- Preference measurement / Referenda, polls and representation

- Deliberation / Opinion formation

- Will formation / Organisation formation

(Tambini, 1999).

Designing the Conceptual Solution

Again, the act of innovation follows a structured process within a clearly understood context. In defining solutions for multi-faceted and complex situations, innovation is a thread rather than a singular event that is applied to each and every stage of the design process. The process described below applies to the conceptual design but innovation could be applied as the situation demands, in the technical design, development and the on-going evaluation and support stages throughout the life-cycle of a service.

Armed with the knowledge of technological perspectives obtained through the evaluation of social media artefacts and the social capital perspectives gained through reviews of appropriate literature; the researcher is tasked to produce a conceptual design of either an instantiation of an existing social media-based artefact or an innovation of a new artefact, for a enabling participative democracy. In a process involving both deductive and inductive reasoning, the researcher matches technologies to activities to produce a logically sound and well-founded conceptual design. This design is thereafter validated through a process of evaluation in order to determine its suitability for the given social service situation.

Validating the Design

The objectives and context of this phase determine that it adopts a critical interpretive epistemology to conduct a "goal-based evaluation of an IS as such" (Cronholm & Goldkuhl, 2003). The IS in this context is an innovation adapted or designed to provide democracy enabling mechanisms to the community. A framework, devised with reference to interpretive evaluation frameworks compiled by Walsham (1999) and Lagsten & Goldkuhl (2008) and adapted for the critical interpretive epistemology of IS evaluation, proceeds as follows;

- Evaluation data are identified and arranged to; establish the ontological context by confirming the preconditions, both historical and current (Walsham, 1999; Cecez-Kecmanovic, 2005; Lagsten & Goldkuhl, 2008), of the social service-based community and the capacity for social media to serve them and to establish the purpose of the evaluation by clarifying the stage of the IS development (Walsham, 1999).

- A model representing the evaluation object must be hypothesised and presented in order to articulate an organisational context for the evaluation and to identify the various stakeholders and their roles (Lagsten & Goldkuhl, 2008) thereby determining the different perspectives and motives of stakeholders in relation to the project (Walsham, 1999).

- The goals of the evaluation are then examined from the perspective of the social objectives that motivate them, in order to establish the critical research

perspective of this study. This is done by assessing their (goals of the valuation) capacity to effect social transformation through the application of a conceptual IS (Walsham, 1999) and its possible uses (Lagsten & Goldkuhl, 2008) to enable democratic practices (Cecez-Kecmanovic, 2005; Doolin & MacLeod, 2005).

- Identify the objects of the evaluation which are social media-based technologies, including those encountered in phase two.

- Articulate the evaluation strategy to pursue a "goal-based evaluation of IT-systems as such". The strategy must include the roles to be performed by the evaluator (Walsham, 1999) to process a critical interpretive evaluation.

Executing the Goal-based Evaluation

Grimsley & Meehan (2007) note that there is little experience (at least outside the academic world) of using methods, which seek to interpret and/or quantify the subjective or the intangible, especially in the social service or e-government setting. This devised evaluation framework pursues the fundamental principles of critical interpretivism postulated by Doolin & MacLeod (2005);

1) The construction of detailed, local and situated empirical interpretation.

2) A reflective approach that reveals (and disrupts) the assumptions and certainties that reinforce the status quo in organizations.

3) The connection of interpretation to the wider historical and societal context, and considerations of power and control.

The objectives of the evaluation determine the methodological approach (Kaplan & Maxwell, 2005). The objectives are to determine which functions and design features are required of a social media-based artefact to generate the social capital benefits that would serve social service-based communities. Responses to the questions, "What and How?" determines the objective of the research (Travis, 1999). "Functions and design features" are technology factors which could be analysed both quantitatively and qualitatively but "social capital benefits" are entirely qualitative factors and therefore this research is qualified as predominantly qualitative. This phase of study could therefore be referred to as a mixed methods research with a qualitative bias (Johnson & Onwuegbuzie, 2004).

Qualitative research encompasses activities of a framework (theory), that reflects the researcher's perception and ideas of reality (ontology), that specifies a set of questions (epistemology) that the researcher examines in various ways (methodology, analysis). Together these activities provide a paradigm (Denzin & Lincoln, 2005). Being a qualitative study would usually result in the adoption of an interpretive epistemology. However, given the social bias of the research topic, the issues of social order and power relations provide an underlying context which leads to the realm of critical social theory. The epistemological perspective is shaped by the Foucauldian critical research performed in phase one. It is therefore more accurate to describe the research epistemology as critical interpretivism.

Critical interpretivism implies that interpretive IS researchers need to consciously adopt a critical and reflective stance in relation to the role that the ITs they describe,

play in maintaining social orders and power relations in organizations (Doolin & MacLeod, 2005). Applying this stance, the evaluation should proceed as follows;

- Validate the stakeholder practices in order to determine whether they are consistent with practices that promote participative democracy and test the design of the hypothesised model of the evaluation object.

- Assess the functions of the stakeholders as role-players and derive the goals of the conceptual IS by determining through critical assessment, the extent to which they comply with activities that enable participative democracy within the social service-based community.

- Validate the hypothesis represented by the model of the object of evaluation, by inductively and deductively testing whether the structure presented in the model can accommodate the functions of the various role-players.

- Deductively and dialectically evaluate the different social media components and technologies in terms of their suitability to meet the goal of enabling the democratic mechanisms by assessing their functioning from the perspectives of the social service-based community and democratic practices and identifying the need for changes where applicable (Lagsten & Goldkuhl, 2008).

The ultimate outcome of this evaluation, is a description of the design of a conceptual IS that functions to generate social capital derived from democratic practices in social service-based communities. This is achieved by applying deductive logic and dialectic process to assess the conceptual model in which the relevant stakeholders, connected by channels of communication and collaboration, create an organisational context suitable for performing a situationally applicable evaluation (Cronholm & Goldkuhl, 2003) of the feasibility of the different components of social media to meet the goals of enabling democratically functioning communities. This assessment is performed by validating the practices of stakeholders, establishing the goals of the conceptual IS, validating the organisational context represented in the model and finally evaluating the suitability and capacity of each of the social media technologies (the Objects of Evaluation) for inclusion in a conceptual IS designed to meet the evaluation goals.

The evaluation process followed, takes cognisance of the dynamic nature of the relationships between communities which are defined by social objectives but which are in turn defined by the changing circumstances of the communities as their members adopt the roles of stakeholders and role-players performing actions to achieve their social objectives. As a community's perception of its social objectives change, so would the motivations and attitudes of relevant stakeholders in the community, change accordingly. These changes would in turn effect the actions performed by the role-players from within the stakeholders. Identifying actions and their relevance to the community, drives the functions that would be sought from an effective social media platform. Once again the hermeneutic and phenomenological processes "aimed at producing an understanding of the context of the information system, and the process whereby the information system influences and is influenced by the context (Walsham, 1993)" (Myers, 1997) are adopted by the re-

searcher. It is these functions and the capacity to provide them, that fulfil the goals of the conceptual IS and provide the outcome of this evaluation.

During the process of establishing the goals of a conceptual IS, the researcher needs to assess the influence of the dynamic nature of the interrelationships between the component parts of the social structure and make adjustments to the conceptualised model accordingly and repeating the cycle until further change is unnecessary. This dynamism implies an unfolding but unpredictable situation wherein opportunities for innovation might arise. The "Dynamic Social Services Platform Diagram" serves to illustrate these interrelationships and the dynamic nature of a virtual community scenario.
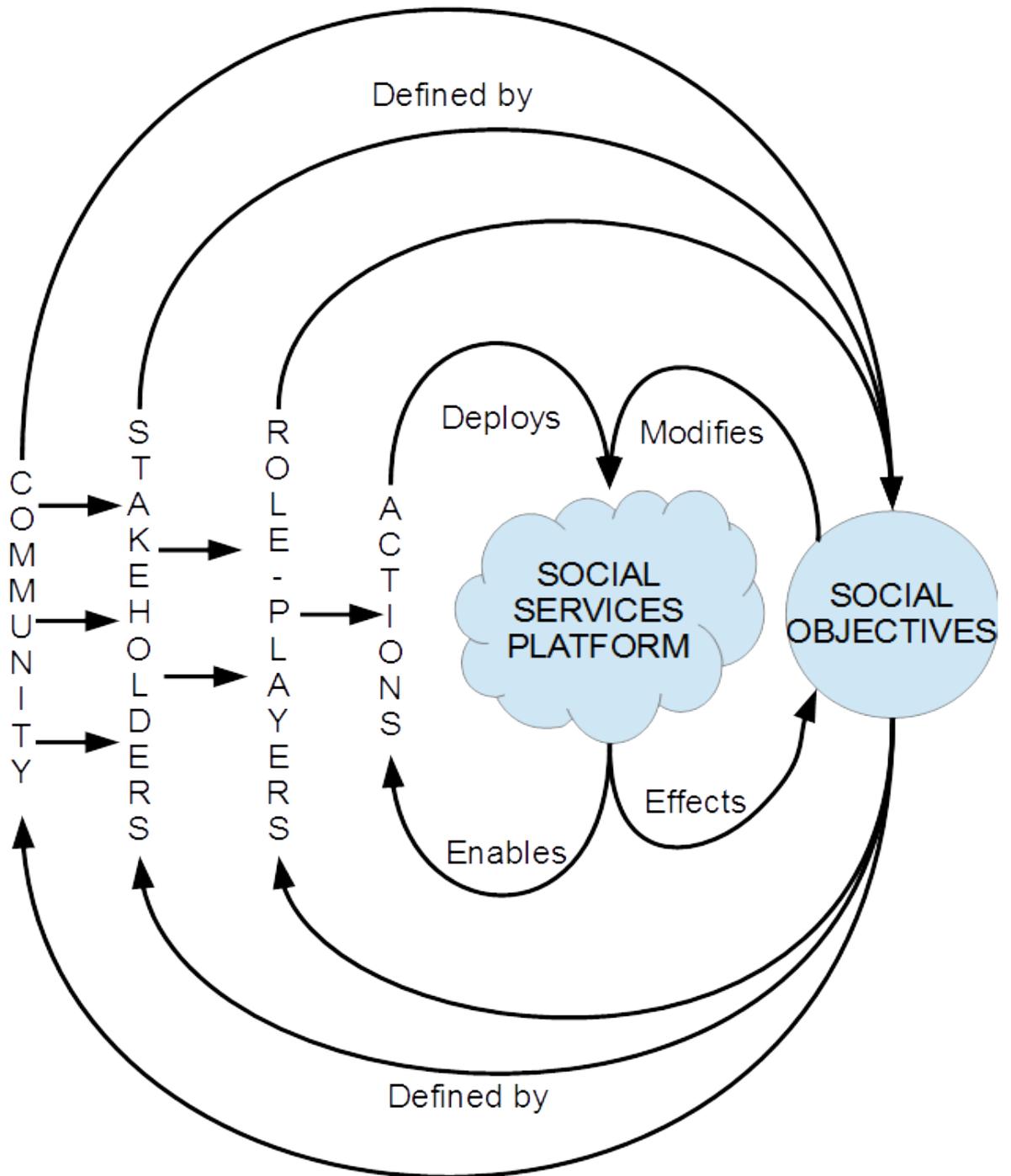
The Dynamic Social Services Platform

Figure 2: The Dynamic Social Media Platform

- Conclude the evaluation by describing a conceptual social-media artefact design from the outcomes of the evaluation expressed in terms of; supporting structures to enable the service to work, design features of the social-media components and service functions enabled by the service.

Concluding Comment

This methodology follows a critical interpretive epistemology in providing an approach to applying design science for solutions to challenges in the provisioning of social services. It also provides an application of the social theories of Foucault in the method of enquiry and the formulation of solutions. The value of this methodology lies in the direction it provides to address research complexity through the intellectually prudent practice of adopting and adapting the proven concepts of inquiry that are defined in accepted research paradigms, whilst simultaneously conforming to an espoused design science methodology; to approach complex social service-based topics of research that invariably span across multiple disciplines.

Whilst the framework provides for establishing an ontological foundation through a critical research phase, it may also be applied in situations where a problem definition is already clearly understood and accepted, based on prior research outcomes. There may also be instances where the means to achieving social emancipation or transformational objectives have already been addressed and all that is required is the design of an enabling technological solution. In these situations, a researcher may choose to apply the framework at some point beyond the beginning; at phase 2 or 3 of the framework or steps 2 or 3 of the DSRM. However, regardless of the point of entry, it is imperative that the researcher conduct a comprehensive and in-depth review of literature concerning the social service issue being addressed by the research as without that basis, the critical aspect of critical interpretive evaluation cannot be performed effectively. The framework should serve to encourage the undertaking of more critical interpretive research in IS by providing a predetermined structure for doing so.

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