Re-Conceptualising IS Research:
A Mindful Process

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ABSTRACT
In this discussion paper mindfulness is linked to Denzin and Lincoln's(2000) 5-stage qualitative research process. In socially-situated IS research a mindful researcher is more likely to produce quality results. A timeline for a typical qualitative research process in information systems presented. The paper concludes with suggestions for including mindful practices in research methods and supervision training in information systems.

Keywords: Mindfulness, qualitative research, information systems

INTRODUCTION
Mindfulness for IS qualitative researchers as an essential characteristic is presented in this discussion paper. First the characteristics of mindfulness are described(Fielden,2005); a typical qualitative research process is defined(Denzin and Lincoln,2000); mindful qualities are then mapped onto this 5-stage research process; a typical research project timeline shown; and implications arising from these mappings for educating qualitative researchers in information systems are also explored.

MINDFULNESS DEFINED
Mindfulness encompasses many qualities(Figure 1) including: mental flexibility, focussed attention, awareness of distractions, refocusing, immersion, meta-awareness and neutral observation.

Mindfulness and the Intellect
IS researcher's require is a well-developed intellect that notices novel distinctions(Figure 1). This ability is required in identifying new research opportunities. Mental flexibility is also required to view existing situations, data, or to analyse results. Understanding multiple points of view is a necessary requirement for gathering the rich data needed particularly for IS qualitative research.

Mindfulness as both state-of-mind and practice, envisioned as an integrated whole has its roots in multiple religious traditions. Bias-free observation and a deep understanding of self and others is a core part of such traditions.

Mindfulness and the Self
Developing levels of self-awareness of rational, emotional, spiritual, and psychological self is part of a mindful researcher's toolkit. Maturity emerges with growing awareness of multiple layers self. The mindful self is also aware of the likelihood of chaos, especially in initial research phases(Figure 1).

Mindfulness and Spirituality
Zukav(1989) believes that intuition is 'the voice of the soul(p83). Without intuition researchers do not have access to emergent whole systems, nor do they have the mechanisms that enable deep and powerful contact with the divine. Mindful researchers are more likely to embrace the spiritual dimensions of mindfulness: humaneness, courage, respect, integrity and reverence (which do not appear to be included in research training curriculum in information systems(IS)).

Non-judgment is a paradoxical mental state for an IS researcher (implied only in grounded theory(Glasser and Strauss,1967)) but not in other IS research methods.

Non-judgement is also implied when any form of systemic thinking(Checkland, 1984) is utilised as a research tool.

Mindfulness and Immersion
It is assumed that immersion in research data will automatically occur. Awareness of changed states of consciousness, mental focussing, the nature and impact of distractions on immersion and the importance of chaotic thought processes that precede immersion are all mindful skills that can be learned(which do not usually form part of an IS research methods course).

Initial states of confusion Wheatley(2001b) are a characteristic of mindful engagement. Wheatley also suggests that listening, rather than engaging in our own inner dialog, is a necessary precursor to mindful engagement and immersion(Wheatley, 2001a). If we do not listen to self, others, and our surroundings, we cannot be present in our social interactions.

Practises that include: training in listening to own inner dialogue to distinguish this from listening to others, particularly when data is being collected; familiarisation with inner chaos – a common state during the early stages of research; a growing awareness of evolving conceptual maturity; an understanding of multiple points-of-view; and an acknowledgment of many self-layers; are all important mindful qualities for IS researchers.

Socially-Situated Mindfulness
Qualitative research in IS is socially-situated. Becoming mindfully aware of researcher-interactions in social situations in gathering data involves entering with a greater awareness of culture, protocols, practices and procedures. When heart and intellect operate together discernment, discrimination, and a greater appreciation of socially-situated knowing(Reason and Bradbury,2001) occurs. The mindful intellect acts upon novel distinctions Langer(2000) with greater flexibility. Butler(2001) identifies contexts of practice that include both social settings and the minds of the knowers.

Mindfulness and Cognitive Maturity
Meta-awareness and presencing are mindful dimensions achieved with cognitive maturity. Both require awareness of what is happening while it is happening. Both require a detached self to notice and learn from the process being experienced. It appears that meta-awareness and presencing belong at a higher cognitive level(but not necessarily high spiritual, emotional, or psychological levels).

Meta-Awareness
Meta-awareness is achieved through spiritual traditions(meditation and/or prayer). Meta-awareness is achieved by designers, artists, and innovators by flow immersion (Csikszentmihalyi,1979). Meta-awareness is a skill seldom taught, learned, or practiced in Western spirituality.

Presencing
Scharmer (2000) describes presencing as "learning from the future as it emerges" rather than reflecting on past experiences(p.18). Presencing about foresight when applied to research practices and is a necessary mindful quality related to but different from meta-awareness. Meta- awareness is being aware of what is happening as it happens, while presencing is the ability to learn from the future

Figure 1. Research phases(RP) and mindfulness

Meta-awareness RP5	Immersion All RPs RP4 mostly	Re-focusing – knows when mind strays RP4-5 Needed to move out of chaotic thought	Intuition RP4-5 -little understood in IS research - may be used without awareness	Respect, Integrity, Reverence RP4 Personal research requirement
Presencing Particularly RP4	Un-distracted Particularly RP4 - as views of others are sought	Determines focus of awareness RP4-5 - this may change during RP4-5	Non-judgmental – free from bias RP4-5 Hard to be in this state -al academics required to make judgements	Courage Humaneness RP4 Personal research requirement
		Mindfulness	Discernment & Discrimination RP4-5 (particularly)	Spiritual Awareness RP4 Personal research requirement
Evolutionary Process RP3-5	Maybe chaotic at times RP1-5 Particularly before & during immersion (RP1-3 & initially RP4)	Listening to Self RP4-5	Heart & Intellect RP4 Core requirement for sensitive data collection	Appreciation & understanding RP4 Personal research requirement
State of Mind & Practice RP5 (Moves from situated within academia to immersion in case – linked to meta-awareness in RP5)	Mindfulness & the Self RP1-5	Multiple layers of self RP1-5 May emerge at anytime RP1-5	Mental flexibility RP1-5	Socially situated RP1-4 Data collection – practical Others theoretical
	Transformation of Self RP1-5 May emerge at anytime during the whole RP – usually as a result of immersion	Understanding Multiple points of view RP1-5 Required for gathering rich data	Notices novel distinctions RP1-5 The essence of research	Transformation of others Should not be part of qualitative research May emerge from changes brought about through qualitative research

(Note 1: Denzin and Lincoln's(2000) Research Phases; Note 2: Fielden's (2005) mindful dimensions)

as it emerges. Both meta-awareness and presencing are situated on the same timeline continuum and on similar levels of conceptual abstraction in interpreting research findings(Figure 2).

THE RESEARCH PROCESS

Most IS research is situated within a specific time and place in an organisation.

An essential tool for all IS researchers is the ability to see novel distinctions as the research process unfolds. An understanding of how one becomes immersed in the research domain and being one's own inner observer also helps in developing an understanding of multiple points of view and the self transforms during the whole research process(Figure 2).

Research Phases 3-5
An understanding of research as an evolutionary process emerges during RP3 and may be present, especially in qualitative research during data gathering, analysis, interpretation and presentation of research findings.
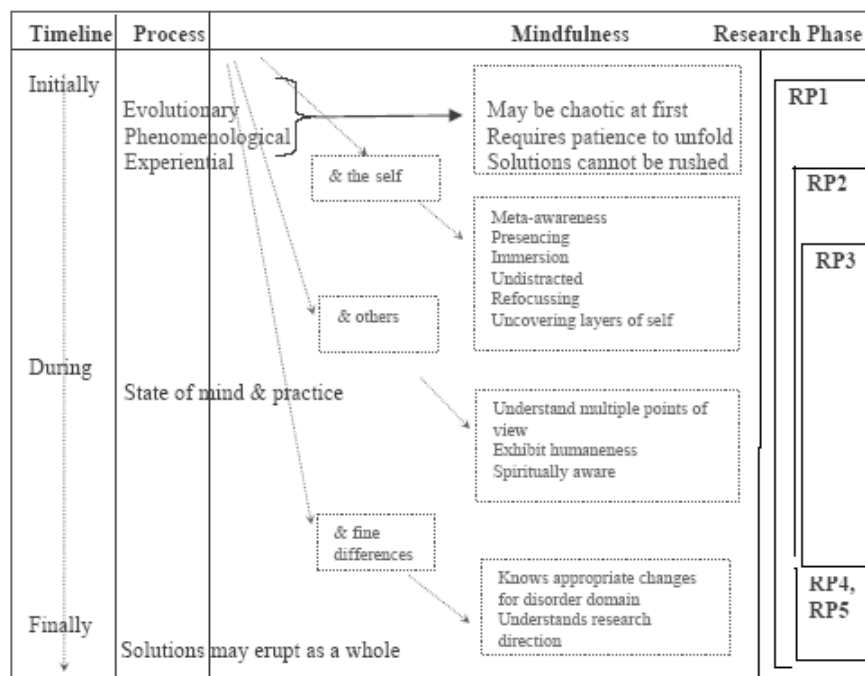
Research Phase 4
Mindfulness is critical at RP4 as the IS researcher enters the researched domain. The socially-situated characteristics of respect, integrity, courage, humaneness and appreciation of others all influence the way in which the researcher conducts data-gathering exercises. Understanding of how heart and mind work together and a deeper spiritual awareness are all mindful characteristics required.

Table 1. Pragmatics, process & philosophy/research phase

RESEARCH PHASE		PRAGMATICS	PROCESS	PHILOSOPHY
RP1	**RESEARCHER** Academic researcher image, subjective self in the process	Little historical or political view of research context in business How to enter business domains	Multiple roles Proposal approval Power and control issues	May have academic philosophical knowledge e.g. systems theory, appreciative systems . . .
RP2	**THEORY** Situated within philosophical foundations			Theory resides within this domain
RP3	**STRATEGY** Situated within academia, about research context (practice)	Suitable theory may not be practical	Ethical dilemmas, proposal approval	Research strategy situated within academia
RP4	**DATA COLLECTION** Pragmatics – informed by philosophy and formal process	May have emergent results Cultural issues may arise May have communication dilemmas What is not said or is not permitted to be said	Ethical dilemmas at data collection Language of data collection tools may be academic Distorted results	
RP5	**INTERPRETATION** About research context embedded in theoretical language	Reporting & interpreting emergent results Reporting language Missed data not reported or analyzed	What to report – political correctness What is not reported What is accepted as legitimate research Acceptance of emergent results	Results embedded in philosophical, academic interpretation

Figure 2. Mindfulness qualities and the research process

Research Phases 4-5

Mindful characteristics required at both RP4 and 5 are intuition, re-focussing, determining the focus of awareness, non-judgement, discernment, and listening to self.

Research Phase 5

When research findings are examined for meaning the mindful researcher brings to bear a level of meta-awareness about state-of-mind both in academia and in the researched domain.

Regardless of whether IS research is positivist, interpretive, or critical there is little influence from socially-constructed application domains when exploring philosophical frameworks. It therefore seems inevitable that little or no theoretical understanding of IS research crosses into these domains(Table 1).

When mindful qualities are applied to typical research project timeline(Figure 2) researchers different mindful qualities are required depending on the research phase. Initially an awareness and familiarity with chaotic thought processes is required. During the research process a deeper understanding of immersion and self experiences are beneficial. Social interaction within the research domain requires an understanding of multiple points-of-view and humaneness which enrich both the participants and the researcher. When research data is analysed(RP4-5) mindful qualities that find fine differences are required.

In RP1 an IS researcher is usually situated within academia, and 'knows the self' as an academic researcher(Table 1). Research rules, proposal approvals and ethical considerations all form part of the research process in the academic domain. Philosophically, academic research is usually grounded in a recognised body of theory; and builds on the research of others. The IS researcher therefore has little knowledge of the situated self in the world of the application domain.

RP2 is conducted entirely within academia where theoretical paradigms and perspectives are explored and is the domain in which mindful qualities are most easily applied as the researcher is within her/his own 'comfort zone'.

RP3 is the traditional starting point for most IS research – setting research strategies and this takes place within academia(Table 1). Theoretical ethical dilemmas are resolved, proposals approved and boundary setting for potentially unknown situations take place. RP3 provides many situations in which chaotic thought processes occur as planning for the unknown takes place.

In RP4 data is collected and analysed and it is here that the IS researcher moves from the sheltered world of academia into the less familiar research application domain. It is in RP4 that many mindful characteristics(Figure 2) are required as socially-situated and empathetic knowing is activated. It is likely that the more mindful the researcher the richer the data gathered. Whilst the mental models underpinning RP4 are grounded in academic theory and philosophy, this does not necessarily mean that the IS researcher is equipped to gather data in a mindful manner.

The final stage of the research process is, once again situated within academia. Research results are embedded in the underlying theory and philosophical approaches and written in academic language. Pragmatically, issues surrounding the interpretation of data are underpinned by the mindful maturity of the researcher. This is rarely acknowledged or reported in research articles.

RECOMMENDATIONS

IS researchers who have become mindful practitioners are more likely to produce quality research findings that benefit both participants and academia. It is recommended that: mindful practices be included within IS research methods classes; and postgraduate supervisors be trained in mindful practices to support and develop their students as mindful researchers.

A suggested plan to train mindful IS researchers is to:

1. Increase the awareness of mindfulness by introducing practices and skills into research training curriculum;
2. train postgraduate supervisors and educators in both mindful practices and how to teach mindful practices;
3. Include awareness of multiple points of view in research training curriculum. One suggestion is to include an introduction to systems thinking, complexity theory and chaos theory; and
4. Role model mindful practices in teaching and supervision through dealing with uncertainty and chaos, mediated solutions, self-responsibility, respect for others and acting with integrity.

CONCLUSION

It is evident therefore that to become a mindful IS researcher requires more than the standard research methods training in which the steps of various research methods are learned and applied. Instruction in mindful skills should lead to higher quality research reports. If, however postgraduate supervisors do not practise mindfulness then these qualities developed in student researchers may not be recognised and therefore are not likely to be developed any further.

Quality research reports in the academic domain may be evaluated according to the rigorous way in which research was conducted. What if these rigorous results were gleaned from data gathered by insensitive interviews, poorly facilitated focus groups with a lack of awareness of the effect the researcher was having on the participants?

In this paper the concept of mindfulness has been applied to a typical qualitative research process(Denzin and Lincoln,2000). If indeed we are to become better IS researchers it seems a sensible approach to address ways in which the research process can be improved.

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