



A suitcase as a PhD? Exploring the potential of travelling containers to articulate the multiple facets of a research thesis

Daria Loi

RMIT University, Australia

[<Daria.Loi@ems.rmit.edu.au>](mailto:Daria.Loi@ems.rmit.edu.au)

Introduction

What happens when a PhD thesis cannot be articulated in a conventional format?

What if one believes that words alone tell only one aspect of a complex story?

Can a suitcase and its complex content made of textual and non-textual elements be a research thesis?

This paper examines such questions looking at my PhD thesis, which was developed as a series of travel containers – a thesis-as-suitcase – that included written text and a range of interactive artefacts.

I argue that in some circumstances ideas should be expressed and accessed in multiple ways, offering the view that researchers should adopt an approach I call multisensorial writing, an approach that mirrors how people experience and filter the world.

Besides looking at a series of issues to consider when embarking on a journey involving alternative approaches to writing a thesis, the paper discusses the idea that anomalous formats can enable designers/researchers to convey concepts in sensorial, emotional, and intellectual ways not possible with traditional formats.

To be consistent with the modes of writing and reading explored in my thesis I have decided to write this paper in the first person, adopting a more personal approach to my writing with the intention of creating a sense of familiarity between myself and the reader.

Background

In this section I introduce my PhD thesis-as-suitcase as a case-study, defining its rationale and methodological underpinnings.

After highlighting the context of the thesis, I open up the issue of how to represent content in a way that is consistent with the notions discussed within a thesis – this means a thesis can show as well as tell.

I then overview the ways in which I have addressed the representation of my research material using an alternative format, including the methodological tools I adopted.

The context

The research for my thesis explored ways to foster organizational spaces where collaborative activities could be undertaken. This led me to design a process for the generation of such spaces using design tools and methods.

I argue that such spaces should be developed using Participatory Design driven processes (Cherkasky et al., 2000; Dykstra-Erickson et al., 1996; Muller et al., 1992; Sanders, 1999; Sanoff, 1990; Sanders, 2002; Schuler and Namioka, 1993; Ehn, 1992; Kuhn and Winograd, 1996; Trigg et al., 1994) where the inhabitants of an organization are enabled to co-design such spaces.

In my thesis I discuss the idea that for co-design activities to emerge participants have to be linked by meaningful relationships. The idea is that participatory design activities require participants to feel comfortable with each other, to be able to collaborate and to communicate via a shared language before embarking on co-design processes.

Within this context I developed a series of tools called Playful Triggers. These triggers included some smaller suitcases inside the larger suitcase, old (specially adapted) travel stickers, letters and postcards to the reader, gifts for the reader mimicking those given to family and friends after a journey, various envelopes and parcels, maps, and an eclectic array of visual and three-dimensional artefacts-as-stimuli.

Playful Triggers 1 are proposed within the thesis as effective tools to elicit relationships among their users so that they can learn together how to work together before undertaking co-design activities.

It is important the reader notes that, although this work has its roots in design and has been developed by a designer, the thesis is embedded within a different disciplinary context - management - and was supervised by both management and design practitioners.

The topics covered by the work sit comfortably in the space between the two disciplines (design and management) but adopt a wide range of disciplinary approaches and materials. So this thesis can be considered a postdisciplinary work (Sayer, 1999; 2000) as arguments and ideas rather discipline-oriented processes lead the work.

Issues and process

Due to the participatory methods and tools proposed in the research, I decided to explore the opportunities offered by a thesis to become a place for participatory practices to

emerge and to be an artefact where readers could be asked to physically, emotionally, and conceptually experience ideas rather than just read about them.

I perceive as inconsistent the notion of discussing methods via a medium that does not allow such methods to be demonstrated and experienced.

I believe that in some instances a traditional PhD thesis format – the bound paper report – does not enable the expression of what one intends to share with others through the thesis and does not mirror the concepts one intends to promote.

As a researcher I intended to be consistent with the arguments of my thesis and the participatory nature of these arguments. Besides, I wanted readers to appreciate and experience content in a participative way. However I felt I could not be consistent with my work and express ideas so that readers could experience them at the level I felt appropriate by adopting the bound paper report format.

I believe that in cases such as the one explored in this paper, the notion of what constitutes a thesis should be reconsidered and opened up to non-textual ways of delivering ideas and concepts that allow consistency, expressiveness and the amplification of both researcher's ideas and readers' potentiality to generate new ones.

In line with such views, I decided to consider format alternatives for my research and developed a thesis with an anomalous format that: enables a discourse between researcher and reader; actively demonstrates some of the issues the thesis discusses; and respects and mirrors the methods I put forward through my work.

The above are achieved using both written content and a variety of artefacts (found and custom-made objects, CDs, images, etc) that use metaphorical, tactile, sound-based or visual means to carry meaning.

Both non-textual and textual content are contained by an artefact that is presented to readers as an anomalous container: a cardboard suitcase.

The concept

The cardboard suitcase is the main container of the PhD research.

This thesis-as-suitcase is however not a simple container but a complex system that incorporates textual and non-textual content complementing and amplifying each other using metaphors as converging points.

The suitcase was chosen as it embodies the metaphor of journey – the travelling of a researcher developing a PhD thesis. At the same time the suitcase contains a series of metaphors which are embodied by the artefacts it contains.

Metaphor itself as a word evokes the notion of journey. Metaphor – literally meaning to carry over, to transfer – derives from the Greek *metapherein*:

meta` : beyond, over + *fe`rein* : to bring, bear.

The suitcase and the travel-related artefacts it contains embody the metaphor of journey with the meta-understanding that the notion of metaphor itself is linked to the idea of travelling.

The thesis-as-suitcase metaphorically carries readers from one place to another, so they can appreciate the journey that I undertook in the last few years; experience my proposition and create new ones; and travel in the space between ideas and artefacts.

Analysis

In this section I overview the thesis structure and a series of notions that are related to how the thesis-as-suitcase has been designed.

I also discuss notions related to readers' interaction with the thesis and a number of issues that should be considered when embarking on alternative thesis formats.

Thesis-as-suitcase's structure

The metaphor of travelling and travel containers have been used to underline different aspects of my research. Each travel-container is a metaphor containing material and artefacts that belong to a specific time and metaphorical space.

The thesis-as-suitcase becomes this way a collection of travel-containers I packed during my research journey – containers I offer to participants so they can travel through content and ideas with me.

Bateson (1978) once mentioned: “we are not outside the ecology for which we plan – we are always and inevitably part of it” (p. 504). Similarly, both researcher and reader are part of the ecology the thesis-as-suitcase represents – an ecology that contains ideas, reflections, provocations and the researcher's presence.

On a practical level, after the reader has accessed few general notes about the thesis and after deciding a preferred mode of interaction, the reader can access a medium-sized cardboard suitcase that reveals a series of A5 sized books (some textual components of the thesis), some smaller suitcases, and a range of objects and inscriptions inside the lid of the main suitcase.

Each smaller container includes textual components and artefacts that are directly or ambiguously related to the notions discussed by the text. Readers can interact with any material and add, modify, play with all the content as preferred.

This way readers are empowered to participate and contribute to the thesis rather than being passive recipients, besides having the chance to asynchronously relate to the writer and to readers that will 'visit' the suitcase after them.

Role of metaphors

Metaphors are inevitable and useful. They are not embellishments. No pure space exists outside their spell. They are part of our craft. They form our life as researchers. Without them we would be nowhere that we could know. (Clegg and Gray, 1996: p. 91)

The thesis-as-suitcase uses metaphors on several levels, beyond doing so within its written sections. I have indeed explored the opportunity for a thesis as an artefact to become a metaphorical space.

Hillman (in Reason, 1988) defines metaphors as fables in brief as they “give sense and pattern to insensate things”, referring to them as “more than ways of speaking; they are ways of perceiving, feeling, and existing” (p. 84).

To Morgan (1996) metaphors “belong to the realm of being” and they “give us specific frames for viewing the world” (p. 228) – they are ontological and epistemological.

In my thesis-as-suitcase metaphors play the role of “deepening, clarifying, understanding and expressing knowledge”, communicating “areas of interest and passion”, fostering the capacity to see “from perspectives previously inaccessible”, and offering “ways to grapple with questions that arise” (Randee and Mealman, 1999).

According to Pinder and Bourgeois (in Clegg and Gray, 1996: p. 80) metaphors are used because: language is inherently figurative; metaphor usage demonstrates cleverness; borrowing metaphors from other disciplines brings legitimacy; metaphoricality is a result of being multi-disciplinary; when we ignore existential presuppositions we will use metaphors; and metaphor use is expedient.

For Morgan (in Clegg and Gray, 1996: p. 80) the rationale for using metaphors is expressed via a number of propositions: metaphors are central to the way in which humans forge their experience; through metaphor we develop language; not only are metaphors essential to the development of language, but, what amounts almost to the same thing, they are essential to develop cognition; and through metaphor we generate an image of data.

The use of metaphors in the thesis-as-suitcase allowed me to show layers of the work that were often indescribable and to create a frame that linked time, perceptions and reflections in one fable-in-brief.

The metaphors I have used are not mere titles to sections or a preparation to stories I share with the reader, but stories themselves – they add extra nuances and the possibility for reflection and re-interpretation.

These nuances will appear differently to various readers as they bring themselves into the thesis and as they interpret metaphors that “are sufficiently ambiguous to permit latitude in that focus” (Clegg and Gray, 1996: p. 82).

The potential to have different interpretations of the content resulting from such ambiguity is an important designed element that enables readers to find their place within the thesis-as-suitcase, facilitating their relationships with researcher and future readers and enabling an active and individual participation in the researcher's journey.

The metaphors I have used are concepts (fables-in-brief) that have been expressed in a variety of ways with the understanding that a single concept can be presented as an

image, drawing or photograph (to look at), a surface or artefact (to touch), a sound or music (to listen to), and/or as a word or group of words (to read).

In this way metaphors speak a variety of languages that foster multi-layered experiences in the reader, opening up opportunities for a variety of perspectives, feelings and interpretations and a sense of dialogue between reader and researcher.

This view enables researchers to use a variety of expressive modes to articulate their work – to use multisensorial writing that can mirror, in multi-modal ways, how they filter and experience the world and which can be offered to readers so they can create their own place within the research.

Role of artefacts

In the thesis-as-suitcase non-textual elements offered me the chance to convey concepts on sensorial, emotional, and intellectual levels that a traditional format could not communicate. These non-textual artefacts represented embodied conceptual arguments that could transfer ideas and sensations when physically handled.

Thanks to the inclusion of non-textual elements the reader is in the position to unfold and clarify concepts on different levels; expand the thesis content beyond that which words can describe/define; and appreciate the tools described in the thesis by touching, experiencing and playing with them as well as reading about them.

In the thesis-as-suitcase non-textual elements range in their typology and in how they contribute to the research process. These object types and their purposes include:

illustration-objects – to show the reader how the tools discussed in the thesis look, feel and operate;

trigger-objects – to elicit readers' responses and create communication via interactive activities with both researcher and future readers;

CDs – to expand the thesis content by adding new appendix-like material;

found objects – included in anomalous contexts and linked with ambiguous material to foster curiosity and wondrous experiences;

game-like elements – with related tasks asking readers to play so they can reiterate issues discussed in the text;

sculptural elements – to amplify the thesis content and the experiences described in the text;

gifts to the reader – to generate a sense of bonding with the researcher and with future readers;

enabling-items – to assist readers in navigating through the thesis; and

ambiguous objects – that due to their ambiguity are left for readers to make sense.

Role of wonder, play and learning

Wonder, play and learning are discussed in the thesis-as-suitcase as essential in the development of collaborative workspaces and have been used as crucial keys in the suitcase system.

The thesis has been designed to trigger playfulness, wonderment and learning in readers. Its non-textual elements are playful and wondrous thanks to their material qualities; their use of metaphors, irony and ambiguity; and because they ask readers to engage in playful activities.

In the following paragraphs I discuss the role of, and links between, play, learn and wonder in the context of my thesis.

Learning and knowledge occur through an act – they are built.

Schwandt (1994) observes that “knowledge and truth are created, not discovered by mind” (p. 125). Learning occurs in the making of things and in the thesis-as-suitcase learning is an active experience through which meaning is shared and created by readers.

The making of things and the learning that flourishes from the act of making create knowledge-by-encounter that is intuitive and holistic.

In the thesis-as-suitcase to make is to learn, to make requires playfulness, and to play is to learn.

Although we appear to be “socialized out of playing” (Robert Root-Bernstein in Lemelson Center for the Study of Invention and Innovation, 2003), play promises the freedom to invent – to make something unexpected.

Gopnik (in Lemelson Center for the Study of Invention and Innovation, 2003) highlights the links between play, creativity, and invention – these links are integrated within the thesis' content and its format.

The thesis links notions of making and of playing to that of wondering. People are facilitated to make (and learn) via playing with artefacts that make them wonder.

The act of wondering is linked to mysterious places and events, to the unknown and to the act of knowing as “whoever does not know it can no longer wonder, no longer marvel, is as good as dead, and his eyes are dimmed” (Einstein, 1954: p. 11).

The thesis-as-suitcase links play, learning and wonder via textual and non-textual material enabling the reader to develop meaning and find a place within the thesis.

The research embodied by my thesis-as-suitcase was therefore designed to become an intimate space where readers could play, wonder and learn by touching, adding, reading, modifying, expanding, choosing, making, reflecting, changing...

Role of readers

The thesis-as-suitcase has been designed and should be experienced as a multisensorial place - “not so much in the sense of being simply rich in stimuli but having different sensory values so that each individual can tune in to his or her own personal reception characteristics”, implying that “standard univocal solutions cannot be conceived for everyone” (Ceppi and Zini, 1998: p. 16).

The thesis embodies the notion of a multisensorial place where the researcher intends to engender in the reader a receptive engagement with the work.

Deikman (1973) discussed the notion of a receptive mode as “one which allows events to happen” - “instead of being verbal, analytical, sequential, and logical, this mode of consciousness is nonverbal, holistic, nonlinear, and intuitive. It emphasizes the sensory and perceptual” (in Bortoft, 1996: p. 16).

Receptive modes' main characteristics are: diffuse attention, paralogical thought processes, decreased boundary perception, and dominance of sensory over formal attributes. This mode is compared to the active one which characteristics are: focal attention, object-based logic, intensified perception of boundaries, a dominance of form over colour and texture, and a goal-oriented state.

Deikman (1973) suggests that the active mode dominates the receptive mode due to the value placed on biological survival, stressing that the receptive mode is functional during infancy and that “the developmental preference for the action mode has led us to regard the action mode as the proper (or ordinary) one for adult life while we have tended to think of the more unusual receptive states as pathological or regressive” (in Bortoft, 1996: p. 16).

The thesis-as-suitcase acts as a stimulus so readers can engage with its content via receptive modes. This required the thesis to be designed so that readers could engage in inter-active ways; structured so that interactivity can be fostered and sustained; and structured differently from a conventional text-based thesis.

These notions imply that readers have to unfold content in ways which differ from those used within traditional theses as they are asked to:

- expand content beyond what can be expressed in words;
- unfold and clarify concepts on multilayered levels;
- engage in interactive activities that require receptive modes of engagement;
- appreciate the tools described in the thesis by touching, experiencing and playing with them as well as reading about them;
- construct personal meanings and connections between provided items;
- develop several layers of meaning that go beyond those fostered by text-based works;
- be open to the idea of generating an asynchronous dialogue with author and future readers;
- entertain making as well as reading, thinking and reflecting activities;
- contribute to the thesis with their views, ideas, knowledge and understandings;
- develop ways to access content which are ad hoc and different from those required by text-based theses; and
- undertake an engaging journey that could be more demanding (in time and effort) than a traditional thesis.

Associated issues

There are several issues that should be considered when embarking on a project such as that of the example discussed in this paper – the thesis-as-suitcase.

Based on my lived experience I have isolated a series of notions that researchers interested in developing a thesis using alternative formats might want to consider.

Production issues that need to be considered when producing an alternative-format thesis: funding (a substantial amount of money might be needed so financial support should be considered – both at university or other levels);

time (more time to complete could be required as besides the writing there may be a lot of making);

amount of required words (the word-requirement should be negotiated and agreed sooner rather than later. For instance, I was asked to produce the same amount of words for my work as if it were a conventional thesis. This opens up questions around the value currently placed by academia on alternative thesis formats).

words/non-words balance (how much can/should be said via non-textual means?)

the use of copyright images and ethical considerations associated with such use (these are issues that can substantially slow down the process so they should be addressed as early as possible);

extra copies (it could be a good idea to have two personal copies – one for keeping and one for displaying. Also, prototypes might be required by the university to get permission to adopt unconventional formats); and

copyright of material used in the thesis (can the researcher ensure the designed and manufactured items will not be used by others without permission and outside their context?).

Accessibility issues – there are a series of issues which are related and consequent to the ways in which a thesis is structured and how the reader is asked to relate to the work:

time (is the reader asked to put extra time to access the thesis? if yes, how much time? Is it a reasonable proposition? does the thesis address this issue by communicating its implications to readers?);

amount of work (is the reader asked to undertake extra activities due to the alternative format? if yes, how much extra work is the reader asked to undertake? does the thesis address this issue communicating to readers its implications?);

clarity (how clear does the researcher intend to be in terms of how to access the content? is the reader in a position to clearly understand how to access non-textual content? if not, is this part of the thesis's plan? if it is part of such plan, does the thesis explain such decisions and their rationale? should such things be explained?);

interactivity (are the interactions/expectations well explained to the reader? does the thesis enable readers to interact with its content? did the researcher design how to interact with the thesis? does such design activity need to be explained in the thesis content? should it be left ambiguous and up to the reader?); and

structure (do all non-textual items relate to the thesis' content? do they have to? what is the relationship between text and non-textual items? did the researcher design the structure of the thesis? is such design activity similar to that of designing a conventional thesis structure? if not, in which ways?).

Control issues – there are also a number of issues related to how and if to 'control' readers' interaction with the thesis' content:

structure (does the structure enable readers to access the thesis in a variety of ways?

does the thesis have to be structured to allow multiple access-paths? can and should the researcher ensure readers will engage with material following a designed path?);

interaction (can the researcher control how and when items will be unfolded? should the researcher do so? what happens if readers decide to unfold items within timeframes that are at odds with the researcher's designed path?); and damage and life-span (has the thesis been designed so that it can cope with repeated handlings, designed to last? should it be built to last? are readers put in a position to feel that their interaction with items is fine even if such items are damaged?).

Discipline related issues – a series of issues are associated with the discipline in which researcher and readers are embedded:

accessibility for readers from other disciplines (is the thesis accessible regardless of disciplinary background? does the reader require specific discipline-knowledge to access the work?);

discipline-based assumptions (concerned with how to interpret and interact with non-textual content and related design activities); and

discipline-based ways of interpreting, interacting with and reading content.

Fitting/non-fitting issues – a number of issues related to 'fit' can occur when embarking on the production of a thesis using unconventional formats:

the university structure (what is the university's understanding of conventional and alternative theses? are alternative formats acceptable? to what extent? are there shared understandings of what an alternative format implies and requires?);

permission (if the institution is not used to alternative formats it is likely it will not have procedures for how to deal with researchers intending to explore alternative formats.

Moreover researchers will have to go through a series of 'acceptance' steps to have official permission to adopt alternative formats); and

responsibilities (how are responsibilities shared? In my case I had for instance to acknowledge in writing that, although the university decided to allow me to adopt an alternative thesis format, I was totally responsible for the higher risks and possible consequences of such a choice).

Supervision issues – supervision is a sticky point generally speaking and in cases such as the one here discussed, it can become even stickier. Managing the supervisory relationship requires a great deal of attention as it can impact at several levels on both thesis and researcher. Issues include:

curation/design capacities and understandings (are supervisors capable of understanding and supervising curatorial processes? do supervisors have curatorial and design capabilities? are supervisors simply interested in alternative thesis formats or are they deeply aware of what they mean, represent, imply and require?);

like-don't like responses (do supervisors project their taste and personal design ideas onto the researcher's non-textual material? can supervisors ensure their taste and personal design ideas do not influence the supervision process? can they enable rather than direct the PhD student in designing non-textual content? can they ensure the selected examiners will not enter into personal like-don't like taste-related loops? In my experience interaction and immersion enabled by non-textual material appears to encourage people – including supervisors – to sometimes entertain commentary and related actions that relate to the look of the thesis or to opinions around its design rather than the meaning, importance or contribution of the thesis.);

risk taking (what is the risk level associated with supervising alternative thesis formats? who risks what and how much? are supervisors deeply aware of such risks? can they be supportive within tricky and ambiguous situations or will they abandon the researcher? will supervisors attempt to compartmentalise the researcher and the work if they feel they are taking risks they are not comfortable with anymore?);

keeping supervisors in the loop (supervisors could tend to over concentrate on the textual material with which they are more familiar, forgetting that within a non-conventional thesis the text and non-text components are unlikely to operate in isolation. Supervisors could

find it more complex or confusing to visualise a researcher's overarching vision. Issues can arise if supervisors forget or cannot understand the designed structure, its relation to the text, the role of artefacts and their relation to the text. This is more likely to occur when the researcher is embedded in a different disciplinary context from the supervisor and is undertaking postdisciplinary research activities. To minimise such issues, it is suggested to create a system that keeps supervisors in the loop so they can constantly visualise the broader vision and how all aspects of a work relate to each other); and shared understanding (supervisors cannot always keep track of and understand a researcher's vision in the same way in which a researcher cannot always understand supervisors' interpretations. A shared understanding should be built between researcher and supervisors so that the researcher is enabled to follow a personal line of inquiry rather than follow the interests of the supervisors).

Examination issues – finally, there are several issues related to the examination process.

These require researcher and supervisors to wonder:

are the selected examiners open to alternative thesis formats?

are they capable of accessing alternative thesis formats?

do they have curatorial or design capabilities?

do they have experience in examining theses articulated in alternative ways?

are examiners in a position to access, relate to and handle non-textual theses?

Implications and future development

In this paper I have explored my lived experience of embarking on an alternative way of expressing a PhD thesis, designing a thesis-as-suitcase that enabled users' interaction and creating a dialogue between researcher and readers.

Alternative thesis formats that include the use of artefacts should be considered when:

the researcher intends to be consistent with the content discussed in the thesis;

the researcher intends to show in action theories or tools discussed in the thesis;

the researcher finds textual means unsuitable for delivering specific notions;

the researcher is better at expressing content via non-textual means; and

the content the researcher intends to portray is non-textual.

In such circumstances artefacts have the role of opening up new ways of articulating, accessing, and communicating research, fostering innovation and new modes of delivering postgraduate research.

I propose that the boundaries of what constitutes a postgraduate thesis should be 'stretched' to enable new ways of addressing, demonstrating and accessing content and to allow different individuals to embark on research that is sympathetic to their potential research capabilities and methodological beliefs.

Researchers should be in a position to adopt multisensorial writing when such an expressive mode is parallel to their own ways of doing, thinking and communicating.

Although alternative formats for postgraduate research are not novel, the author argues that institutions are not yet clear on their full potential nor are they equipped to properly facilitate them. Such propositions impact on the nature of postgraduate research and on the competencies necessary to supervise such research.

A new generation of supervisors will emerge as more researchers embark on alternative PhD thesis formats and arrive to completion. These people will be likely to offer more suitable capabilities as they have experienced 'on their skin' the process of developing a thesis with an alternative format, perhaps also managing to do so within multi or post disciplinary contexts.

In the meantime, supervisors and their relationships with postgraduate students intending to produce such work will require greater levels of engagement, patience, risk-taking, coordination, flexibility and openness – especially if the thesis is postdisciplinary.

Due to the high levels of pressure associated with producing alternative format PhD theses it is very likely that students will have to pay more attention to the supervisory process as they might be required to operate as reassuring entities, to foster dynamic supervision loops, to translate their vision into a language that is accessible to supervisors, and to establish shared understandings.

It could be said that postgraduate students will in these cases be likely to spend extra time in helping supervisors learn how to supervise them and in teaching themselves how to be supervised – how to be active participants within the supervisory process.

...until a new generation of supervisors will emerge...

PhD research could have a very different flavour then, a flavour we cannot yet predict but only wonder about.

Endnotes

1 These tools are based on their ancestors: Cultural Probes (Gaver, 2002; Gaver, 1999; Crabtree, 2002; Hemmings, 2002; Hofmeester, 1999; Mattelmäki, 2002; Hutchinson, 2003; Jääskö, 2003). Cultural Probes are “collections of tasks designed to elicit inspirational information from people about their individual lives. They provide an alternative to more traditional methods of user research from the social sciences, such as questionnaire studies, focus groups, or ethnographies” (Gaver, 2002).

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