The Art of Research: Digital theses in the arts
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Abstract:
Technological processes have had a major impact on the way art is produced and distributed and has changed the separation between the agencies of producer/creator and audience. In the post-graduate area there is a need to look at the shape and value of dissertations in the future. If change in art and design will be led by research, what sorts of research needs to be undertaken and which forms of publication will most adequately represent our discipline? Video, sound, animation and performance suggest the submission of a thesis in a digital form. Yet this often poses, time, technical and assessment challenges. This paper looks at form as an alternative to validity and explores the way digital dissertations can expand the art of research and research in the arts.

Introduction
There is a general lack of understanding among staff and students about the balance between practical and creative aspects of research and the demands of theoretical dissertations. Alvarado and Bradshaw (1992) argue that theory is frequently privileged over practice and that this idea has largely been grounded in the traditional discourses of modernism that see a division between mental and manual labour - the challenging balance in the arts between the comparative weight of poiesis (conception) and techné (knowledge and skills). At times, these aspects can almost seem to act in opposition, with many universities establishing delineated boundaries between these complementary aspects of research in the arts and design.

This problem is compounded by the shortage of qualified and experienced practice-based research supervisors in arts faculties. Arts and design students are frequently supervised by people more attuned to written forms of inquiry and presentation. While not bracketing written dissertations out of arts research, there is an uneasy tension in arts research between what is perceived to be the rigors of traditional research and what may be more innovative directions in future research.

This paper pursues the issues of quality, merit and form in relation to digital dissertations in the creative arts. It proposes new ways of determining authenticity in the light of the challenges of collaboration, reciprocity and hyperlinks. It contests ideas of representation, presentation and re-presentation within a framework of performativity in digitalised arts research. Digital dissertation applies to all forms of multimedia thesis submission and includes hypermedia, CD-Rom, websites, multi-media (sound, image and video), interactive document and other digitally mediated performances.

Digital dissertations in the creative arts
Wittgenstein (1915) once wrote that the limits of our language are the limits of our world. If this is the case, expanding available research and communication languages, enables the expansion of the world as it exists in academic discourse. This is of particular importance to researchers within the creative disciplines. Contemporary creative practice is by its nature cross disciplinary. If research is to be a process of revelation, innovation and invention, a range of contemporary languages need to be accepted in the
presentation of dissertations. Yet, as we expand the modes of presentational and inquiry languages in relation to research dissertations, we need to equally expand the parameters of what constitutes value and merit within the context of singular and multiple dissertation modes.

Research methodologies in art and design intimate participation in artistic traditions that value the sensitivity and intuition of the creative mind. Kant (in Cassirer 1974: 145) distinguishes between the terms “aesthetic universality” and “objective reality”. Objective reality involves the truthful depiction of an object or phenomenon, whereas aesthetic universality concerns the communicability of contemplations of the object, rather than the object itself. Aesthetic appreciation involves enlarging understanding, through guiding the viewer to higher levels of contemplation. Given this distinction, electronic dissertations offer the possibility to present ideas in a way that engages the viewer in higher order contemplation and promote deeper levels of aesthetic apprehension. This engagement of the viewer in the digital form is achieved through a combination of interactivity and agency. The nature of digital forms enables a closer relationship to be forged between the sensory responses of the creator and the multisensory ‘reading’ of the viewer. Similarly, the potential for interactive readings changes the agency of the ‘readers’ by making them active participants in the way meaning is organised, presented and timed. This is not to say, that a well-crafted written thesis may not similarly ‘move’ the reader, but to allow digital modes afford arts students the possibility of choosing the best language to promote artistic contemplation.

The real benefit of digital thesis, apart from the mere practicality of being able to use multiple modes of communication, is the way in which the reader or audience can interact actively with the thesis. It could be argued that the ability of the ‘reader’ to travel in multiple ways through a thesis and to interact in a dynamic way to engage with the structure of the thesis, may lead to greater catalytic validity. If a digital thesis can be said to possess catalytic validity, the thesis should engender engaging ‘conversations’ through the presentation of rich sensory description and challenging interpretations that promotes within the ‘reader’ space for imaginings.

In those institutions that have bravely tried to include electronic dissertation, the major problems faced seems to be ways of determining equivalence, authenticity and validity. Lincoln (1988) argues that each tradition of research requires separate and distinct criteria to be brought to bear in judging its trustworthiness or goodness. It is timely that we consider what might constitute “validity” in terms of electronic representation and presentation. To this end, notions of ‘validity’ are not appropriate to apply to aesthetic appreciation as a research method, presented through digital thesis. Eisner (1991: 15) reflects that “the meanings that are engendered through choreography, through music, and through the visual arts are unique or special to their forms.” It is therefore desirable that notions of trustworthiness are derived from the paradigm and represent communal acceptance of the unique nature of the critical spirit contained within digital aesthetic presentations.

Criteria for judging the efficacy of digitally-based inquiries are emerging but as this field is relatively new, it lacks a body of critique that is well-grounded in a community of researchers. One of the challenges for digital research is to more fully engage with issues of significance and develop criteria for determining trustworthiness and quality. This paper suggests form -as an alternative to validity- as a way to determine the quality,
efficacy and cogency of a piece of digitally presented research conceived under an aesthetic paradigm.

**Value, merit, worth and form in digital dissertations**

Key to the notion of the value, merit and worth of research, are a number of issues surrounding the way critique—and ultimately assessment—of electronic dissertations in the arts and design area might occur. In relation to creative digital dissertations, how are issues of authenticity and authorship going to be resolved in a climate of postmodernism, post-conceptual and collaboratively mediated works? Will practical work be judged more in terms of skill and competence or critical analysis? In the case of theoretical components, to what extent should knowledge presume some level of practical application? There are also difficulties in determining equivalences, for example is one digital minute equivalent to 500 words? Does this even matter?

All research methods contain embedded assumptions and values that speak to the ideological paradigm in which they are framed. All decision making involves value judgements. Value in research recognises the personal stance the researcher brings as perceiver and the decision-maker in the study. Electronic research methods allow for maximum flexibility and insight and enable a holistic, multi-language representation.

Effective digital dissertations activate consciousness through the presentation of patterns of circumstances and ideas. This heightened level of consciousness may serve to stir imaginings in a more universal sense and enhance the conversations surrounding a thesis. Kvale (1994) argues that trustworthiness of research is constructed through dialogue and negotiation. The dialogue in digital dissertation is often persuasive and aesthetic. Kvale (1994: 12) maintains that dialogic processes inherently ensure aesthetic quality:

> The solidity of the craftsmanship during the production makes the accountant’s quality control of the final product less necessary. Second, to develop strong products that are so strong and convincing in their own right, that they so to say carry the validation with them, such as a strong piece of art... Appeals to external certification, or official stamps of approval, then become secondary. Valid research in this sense would be research which makes questions of validity superfluous.

Effective digital research must be open to the criticism of others and be self-reflective. The results of critical appreciation are more likely to have impact if the dissertation reflects openness and reflexivity on the part of the researcher and the involvement of a critical community in analysis of the critique and interpretations. Digital researchers need to be aware of underlying epistemological assumptions, biases and prejudices inherent to digital practice, and in common with all quality research, they should gather of data from a range of sources and ensure that digital process encourages holistic data embedded with personal meaning and value.

A digital dissertation offers the potential to use the rich, elegant descriptive language innate to the medium to promote a sense of vicariousness. Concurrently, whichever language or languages are used, it is important that there is transparency and clarity of the language. This is particularly important if the author is using visual, sound and hyperlinked languages as these may be less familiar in interpretation than more conventional written texts. Given the non-linear potential of digital dissertation, it is
essential that the work maintains a sense of wholeness. In its totality, the digital dissertation needs to contain a level of contention and dissonance yet still present a coherent argument supported by evidence that presents multiple, and, at times, even contradictory interpretations. A strong digital dissertation in the art design field should engender deeper discourses and be illuminative through an awareness of referential adequacy. It is this deep insight of the issues surrounding the phenomena that makes the obscure vivid. Added to that, the potential of the digital medium to be presented in a variety of ways opens up the possibility for greater sensitivity in portrayal and a more personal and idiosyncratic style. The layered nature of the digital medium also allows for greater ‘shadows’ of one’s own voice and the ability to embed a level of meta-criticism. Finally, the possibility of the digital medium to provide ‘seriation’- the potential to save multiple versions of thought- could be more fully incorporated in the final dissertation to show the evolution of ideas, and the flexibility and adjustment in the light of developing ideas. To enable the realisation of the seriation benefits of the digital medium, thesis assessment needs to move away from summative assessment to models more strongly grounded on notions of process, formation and tentativeness.

Value in digital theses is comprised of both merit and worth. Merit is defined as the intrinsic beauty or artistry of the research, while worth is defined in a more long term sense in relation to applicability, usefulness, contribution and desirability of the imaginings formulated as a result of this study. Merit remains relatively static and can largely be contained within the process and product of the research. The merit of digital theses is dependent upon:

a) The artistry of the process and product;
b) The beauty of design and the way the digital dissertation ‘works’;
c) The recognition and presentation of new and interesting patterns of ideas;
d) An articulation of the limitations and proficiencies inherent to the research;
e) The explicitness of researcher position;
f) The support and evidence for claims made;
g) A strong ethical dimension, and;
h) A balance between divergence and convergence.

Judgements of merit are bound to characteristics within the research and the research medium itself. People competent to judge merit may disagree about the indicators of merit- or the extent to which the indicators are fulfilled- but merit remains relatively stable.

Worth, on the other hand is determined by the context of the research. Those people with knowledge of the values and context surrounding the study establish the worth of the piece of research. Worth may be greater when a research is particularly original or has a stronger intellectual thrust. The indicators of worth in digital research include:

a) Accessibility;
b) Demonstrable value to practice;
c) Relevance to the community;
d) Ability to push conversations and ideas beyond what is already known;
e) Mobilisation of passion and energy;
f) Emergence of new ideas and innovations, and;
g) Longer term influence on research practices.

I wish to argue that notions of “form” provide a way of determining the value of digitally-based research.
Digital Forms

*Form* is defined as being the configuration, arrangement and style of the digital dissertation. It exists as an abstract ideal comprised of the entities combined with, but also beyond, the digital form. The term ‘form’ implies the manifestation that results from the fashioning of particular digital content into a holistic, creative shape. It involves the establishment of expressive frames that are visually, audibly and/or imaginatively perceivable. Whether the form created is justifiably called ‘artistic’ research depends upon the desire of the maker to compose it into a form that expresses a nexus of feeling. A postmodernist view of form applied to digital research argues that form exists as the result of interactions between makers and audience and is multi-layered, seriated and affective.

In determining the value of digital research, there is a need to elicit the nature of significant form with a digital context. The difficulty is that form is often ‘known’ in an instinctual sense before it can be fully revealed in traditional ways of seeing. Such significance is implicit but not conventionally fixed. Langer (1957: 251) argues that: We cannot conceive significant form ex nihilo; we can only find it, and create something in its image; but because a man has seen the “significant form” of the thing he copies. He will copy it with that emphasis, not by measure, but by the selective, interpretive power of his intelligent eye.

Despite the inherent difficulties of identifying significant form, there is no doubt that significant form *does* exist. Significant forms possess an ambivalence of content and presents in a harmonic fashion. Form is not only the evident shape of digital research, but notions of digital form themselves shape the research process. In this way, digital form becomes a tacit determinant of the formulation, process, product and ‘reading’ of the research.

The characteristics of digital forms may include—but not be limited to—a thesis which presents as being a vital, living, organic, evolutionary form. In providing a semblance of the phenomenon being studied it should be rich in evidence of sentience and relatedness. In this way, digital form should be embodied within the research and be chosen only where it is imperative to the research in terms of representation and presentation. The capacities of digital form should be exploited through rhythmical, harmonic and discordant interrelated systems and present a complete composition that is enactive and projective rather than a copy. A well crafted digital dissertation is constructed in a way that brings unity from contradictory elements.

There is not a set formula or models for effective digital forms. One characteristic of digital dissertations in the arts is that their form should not be static or replicable. Form is also ultimately born in the imaginings of individual readers or viewers of the work. Cassirer (1974: 144) describes this in an analogy to the work of an artist: If we say of two artists that they paint “the same” landscape we describe our aesthetic experience very inadequately. From the point of view of art such a pretended sameness is illusory… For the artist does not portray or copy a certain empirical object—a landscape with its hills and mountains, its brooks and rivers. What he gives us is the individual and momentary physiognomy of the landscape. He wishes to express the
atmosphere of things, the paly of light and shadow. A landscape is not ‘the same’ in early twilight, in midday heat, or on a rainy or sunny day.

Cassirer (1974) accentuates that form is defined by place and time. These may be physical contexts or virtual, social, political or cultural ‘places’ and ‘times’. Location may be temporal and transient. The digital researcher is a collagist or bricoleur, often trying to pull pieces out from a form that is already there and then reconstruct it into a representation of the world as the researcher knows it. This reworking of form raises issues of authenticity.

**Authenticity**

Authenticity is an issue used as an argument to prevent the wider adoption of electronic dissertations, with claims that digitally created work may be contrived from an ever increasing global supply of digital source material. It is certainly important that the dissertation present a voice that is bona fide and identifiable to the researcher, but this is achieved -as in a written dissertation- through the processes contained within the layers of the dissertation.

The reworking of notions authenticity - began in postmodernism- challenge the idea of a single fixed truth, authentic voice or reality. In the digital thesis, reality is a product of sensory induction, personal conceptions, intuition, and imagined ideas. As Guba and Lincoln (1989: 8) identify, “constructions are inextricably linked to the particular physical, psychological, social, and cultural contexts within which they are formed and to which they refer.” There are numerous ways the realities apparent in a digital thesis could be configured, both by the author/artist and by the ‘reader’. There is no final authority because the mere presence of the digital mediation distorts any reality that exists. In an interactive, hyperlinked thesis, plausibility is reliant upon the readers’ interaction with the piece and the vicarious way they are able to assimilate aspects of the work.

Authenticity is further challenged by the collaborative nature of digital production. In practice, digital research and presentation is almost inevitably undertaken by a team of people. The current nature of digital practice in the arts and design is that it generally requires the combined efforts of a large and specialised team of people, working collaboratively to produce the final presentation. Engineers, programmers, lawyers, actors, directors and many other people may actively contribute.

The other aspect of digital dissertations is the way in which the reader or viewer may actively serve to construct the work. Many creative digital works now rely on a level of reciprocity from the reader or audience to actually make the work, or at least activate and possibly alter the work. This level of reciprocity is afforded by the digital medium and will in the future lead to the need to redefine the traditional roles of assessor and dissertation. Furthermore, reciprocity in itself may become a catalyst for the creation of works, with a new entity being ‘born’ out of the interactions with the original dissertation. Smith (1995: 10) acknowledges this reciprocity, indicating that the way the viewer reacts with a piece may in fact lead to the creation “of significant new artworks [changing] our perception of existing works and our understanding of the relationships among them.” In this way the digital dissertation becomes an interactive performance piece, a responsive mode of ‘performing’ knowledge and discourses.

**Performativity: representation, presentation and re-presentation**
The work of Judith Butler in offering a theory of "performativity" has a number of key points that provide a strong argument for the wider acceptance of digital theses. She argues that social reality is not a given but is continually created as an illusion "through language, gesture, and all manner of symbolic social sign". The digital gives the researcher greater access to a wider array of symbolic signs in the making of meaning. Still, the most compelling argument for the performative value of digital dissertations is the manner in which medium, message and viewer/reader are so mutually co-dependent and expressive. Hypermedia provides a direct link between the scholarly intentions and the actions of the reader. This is not to say that the printed page cannot sustain much of the same co-dependency of form and content as hypermedia; nor is reciprocity and performativity hypermedia's sole distinguishing characteristic. A poorly crafted digital dissertation would certainly fail to elicit audience reaction or build a level of catalyst, reciprocity to performativity. Digital scholarship provides the potential for greater inclusion (and transparency) of the production process and greater levels of interactivity between producer and consumer (the reader/viewer). Furthermore, digital research narrows the distinctions between form and content. The performative potential of digital dissertations should encourage a greater awareness of the way in which medium and message are mutually co-dependent.

Digital publication allows dissertations to be available to a wider audience. Similarly, during the production of the digital dissertation, the role of supervisor can be much more direct and interactive. It could be argued that this provides a more democratic way to publish dissertations, taking the control of publication out of the hands of specialised research publishers and into the control of the creator and his/her institution. Conversely though, consideration needs to be given to the level of critique implied within such a freedom of publication.

**Conclusion**

In conclusion, to the arts and design student, digital dissertations offer the potential to use multivocal texts in a way that enables layering of meaning. The possibility of layering, seriation and hyperlinks can be exploited to produce a dissertation that has a greater sense of connection, self-reflection, self-examination and doubt. The wider adoption of electronic dissertation should lead to the expansion of context specific studies and more fully exploit the greater acknowledgement of the hybrid nature of ideas. In its interactive form, the digital thesis acknowledges performativity through the empowerment of the ‘reader’ more fully in the meaning making process.

Digital form is not an absolute entity, but rather changes as a result of time, place and context. The digital and virtual form exists as a balance between intellectual, moral and aesthetic values, mediated through existing or developed software. Effective digital dissertations in the arts design field should engender passion, actively promote conversations, be a catalyst, and be evident of artistic vision.

In the move towards digital dissertations the academic community needs to develop methods and norms for judging quality. These measures should adequately account for the merit and worth of the dissertation in terms of both its form and content. Within the arts and design field, students need to be equipped with the digital languages to be able to make informed decisions about the selection of a language or languages in which to conduct their research and present their findings.
References


