How to explain information to a dead hare: Floridi’s approach to information and its relevance to art practice

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Abstract

This research will attempt to evaluate how the thinking of Floridi, especially his emphasis on information, could in some way affect the way we approach art practice. It rests upon an existing body of study about art practice, pursued through a selective literature review of the works of Floridi.

As artists rediscover the notion of participation, stemming from our growing awareness of our informational environments, we see an increasing need for models and terminologies from theories of information to help us design and manage our informational being.

This study will take the form of desk research in the sense that I will be analysing documents relating to Floridi and art. A breakdown of the key components will be made from selected literature of Floridi with the aim of clarifying some of the terms and concepts used and seeing whether it is applicable to art.

Following a Floridian perspective, we find that Art exists as part of what helps us interpret our existence within a universal informational environment that is negotiated by informational entities that includes, amongst other things, conscious informational organisms and possibly artificial informational agents.

As we see more projects using new technology to analyse data from collections, information professionals are in a unique position to take advantage of this interest in data and information.

Furthering the awareness of Floridi’s informational approach amongst those in the arts sector could be the first step in creating greater connections between the library and information science and art. In doing so, we could further enrich our increasingly digital semantic capital.
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1 Introduction

One of the most fascinating arguments coming to light in the early part of this century is the view that we humans negotiate a universal informational environment with other informational entities, many of which are increasingly artificial creations.

The philosophical issues raised by Luciano Floridi, and the subsequent construction of a *Principia Philosophiae Informationis* (see Floridi, 2013, p.xiv) is perhaps one of the timeliest philosophical efforts in our progressively digital era. His writings surrounding the idea of an infosphere and our informational ethics has given practitioners within the field of Library and Information Science and Information Technology much to consider (Bawden and Robinson, 2018, p.2-5). As we become more reliant on connected digital devices throughout our daily lives, Floridi has highlighted how this reliance has led us to “reinterpret who we are and how we should interact with each other” (Floridi 2014, p.166).

The rise of Information and Communication Technologies from the twentieth century has shaped profoundly the ways in which we live our lives (see Floridi, 2010b, p.xi). The methods and concepts from computer science have already been developed and applied to much philosophical thinking (see Floridi, 2011, p.16). Nevertheless, Floridi believes that it is “preferable to speak of an informational era rather than a computational era, because it is the increasingly pervasive and ever more important life-cycle of information... that deeply affect both individual and societal well-being” (Floridi, 2015b, p.21).
Within the field of art, there has been many attempts from the post-war periods of the Twentieth century to link scientific and informational theories with art theory and practice. In the United Kingdom, there were artists inspired by encounters with cybernetic thinking, where boundaries which were traditionally considered as given were now viewed as human constructions (see Hayles, 1999, p.84).

Whilst artists working with computers (later evolving into art practice labelled as digital art), produced results which are often seen as an obvious link between art and information theory. Yet computers and computing are only a small part of the infosphere (see Floridi, 2015b, p.21). The effects of information theory and its close cousin, cybernetic theories, have influenced artists from a variety of backgrounds. It is for these reasons that the focus of this research will be based primarily around artists working with analogue data.

This research will attempt to evaluate how the thinking of Floridi, especially his emphasis on information, could in some way affect the way we approach art practice. It rests upon an existing body of study about art practice, pursued through a selective literature review of the works of Floridi. It builds upon these prior explorations by aiming to situate art practice in relation to contemporary informational theories and suggesting the way we view contemporary art practice needs to move beyond existing theories.

The title of this project is an adaption of a seminal performance piece title by Joseph Beuys, namely Wie man dem toten Hasen die Bilder erklärt (1965); one of seven iconic pieces recreated by the artist Marina Abramović as a way of archiving and preserving such ephemeral presentations (see Guggenheim 2005).
2 Aims, objectives, scope and definitions

2.1 Aims and Objectives

This project aims to review Floridi’s concept of information as a model for art theory. There is also a lesser secondary aim of finding examples of art that operate in a way that could be said to model or counter Floridi’s ideas. Key questions include:

- What are the themes and concepts of Floridi’s philosophy?
- How do they relate to contemporary art practice?
- How could Floridi’s philosophy influence future art practice?

The objectives of this project are as follows:

- To identify aspects of Floridi’s concepts and ideas and analyse them to determine the key themes and potential problems;
- To compare and contrast the concepts and ideas of Floridi with theories and ideas from the field of art as it has been practiced from the late 20th century to its present day;
- To establish whether a focus on the ideas and concepts of Floridi could influence the development of art practice and whether this is of importance in view of the way art is practiced today.
2.2 Scope and Definitions

2.2.1 Scope

During the latter half of the Twentieth century, information and cybernetic theories provided the language and models that bridged a perceived gap between art and society.

As artists rediscover the notion of participation, stemming from our growing awareness of our informational environments, we see an increasing need for models and terminologies from theories of information to help us design and manage our informational being. “[T]hey may also serve as powerful pedagogic and cultural tools for the transmission of key insights and understandings to succeeding generations” (Scott, 2004, p.1367).

There are several papers that look at the development of information theory and art, though the majority focus on its relation to the development of computer art or net art and the digital art that follows.

In terms of the writings of Floridi, I will start my investigation from some of his earliest texts dating back to the mid-1990s, working my way through his published writings before delving further into his journal articles. At this stage, I will only be surveying works that are written in the English language.

For the initial part of this study, which draws attention to the usage of information through cybernetic theories in the latter part of the Twentieth century, we shall follow the advice of Gordon Pask and distinguish the fundamental basics of cybernetics as a study of systems through the notions of regulation and information flow.

The following provides a working definition of information and art as it will be used throughout the study:
2.2.2.1 What is information?

“Decades of research have shown no consensus or even convergence on a single, unified definition of information” (Floridi, 2016c, p.2).

The adoption of information and cybernetic theories has had a major impression on the rise of computer-related art practices. The influence of Max Bense’s information aesthetics is well documented (see Giannetti, n.d. and Nake, 2012, p.65-67). Within the field of more traditional fine art, information theories made a brief yet barely visible contribution.

Floridi has recommended five authors for those interested in a more in-depth look into information theory (see Floridi, 1999, p.ix). It is, however, worth noting that the difference between information from the perspective of a mathematical theory of communication and that of semantic information “is comparable to the difference between a Newtonian description of... a car accident and the description of the same accident by the police” (Floridi, 2016d, p.44).

Authors of more accessible introductions to information theory and its history are suggested in Floridi (2014, p.221). Referencing his own contribution to the debate about what information in general might be, Floridi has provided a list of four articles in Floridi (2011, p.82). Also suggested are six researchers from the 1970s to the late 1990s which point towards an interest in a philosophy of information (see Floridi, 1999, p.16).
Of those who tried to formulate a theory of information, Donald MacCrimmon MacKay’s attempt deserves a mention. The important distinction brought about by MacKay was briefly explained by N. Katherine Hayles (see Hayles, 1999, p.18-19, p.54-46, p.63-64).

Unlike the mathematical theories of communication stemming from the United States, MacKay’s concept of “information was not opposed to change; it was change” (Hayles, 1999, p.64). To MacKay, a message is only meaningful if “the receipt of the message would alter the conditional readiness of action” (Winning and Bechtel, 2016, p.355). His theory “implied that the goal was not a fixed point but was a changing series of values that varied with context” (Hayles, 1999, p.64). This notion is repeated by Gregory Bateson, though a little more radically in that, expectation is enough as the context (see Lutterer, 2005, p.500). Floridi views Bateson’s better known saying, that information is the “difference that makes a difference” (see Hayles, 1999, p.51, also Scott, 2004, p.1369), as a less accurate version of MacKay’s notion of information as a distinction that makes a difference (see Floridi, 2010a, p.23).

The definitions we will use in this paper will therefore vary from the notion of information as something transmitted, when discussing the earlier models of cybernetics adoption, to the Floridian notion of information as a reality we share with other informational entities, in the latter part of this paper.
2.2.2.2 What is art?

There are as many, if not more, definitions of art as there are, theories of information and it is therefore the task of this section to determine how the term ‘art’ is to be used in this research.

From a Platonic perspective (Floridi admitted that he was formerly a classicist (Floridi, 2018d)), art is a form of imitation and thus it is far from the notions of truth (see Coeckelbergh, 2017, p.290). Likewise, Aristotle believed that we were born to imitate, and humans should be seen as “imitative beings” (Coeckelbergh, 2017, p.290).

In the Western romantic point of view, art is an expression of your inner self (see Coeckelbergh, 2017 p.289-290). Mark Coeckelbergh (Ibid., p.289-290) has pointed out that, more importantly, this viewpoint has developed the idea that “there is an origin... and a work of art is original if it is connected to that origin.” This emphasis has filtered across the Modern period with artists in the Twentieth century looking for ways to challenge the idea of art as being about creative artists (Ibid., p.289-290).

Of the many different art movements of the Twentieth century, the conceptual movement has championed the notion that instead of engrossing the viewer aesthetically or emotionally, art could engage them in an intellectual process (see Goldie and Schellerkens, 2007b, p.ix). Thus, philosophical theories “have served not only as an inspiration, but, at times, even as a source of authority and justification for the work performed by [such] artists” (Ibid., p.x).
Compared with other forms of art at the time, the works of conceptual artists were not limited to specific techniques or art medium, and neither could they be categorized according to a typical genre (see Goldie and Schellerkens, 2007b, p.x). The curatorial work of Lucy Lippard has been most influential in defining such works in terms of its dematerialization of the art object, to borrow the title of her now famous book (Lippard, 1973).

Like most art projects of this period, art is qualified by what Arthur Danto has termed ‘the art world’ (see Danto, 1964). This, in turn, has given rise to George Dickie’s contextualist theory of art (see Lopes, 2007, p.241). Of the criticisms against such practices, James Young has argued that they have “become ‘semantically enfranchised’ by a discourse... [and] cannot be understood... except in conjunction with what is said about them” (Goldie, 2007, p.165).

It is within this idea of a discourse-dependent art, stemming from the post-war period to its present day, that we will begin our journey. The term art, as used in this paper, will not be limited to any particular style, practice or shared qualities other than the fact that something, whether it is physical, conceptual, informational or otherwise, has been defined as art.
3 Survey of Available Literature

This section will offer a preliminary outline of some of the materials available prior to the main investigation itself, which consists of a review of selected literature by Floridi and art.

3.1 Art resources

In terms of resources relating to discourse-dependent art practice, the Vancouver Art Gallery library was approached for resources relating to Lucy Lippard’s seminal exhibition 955,000 (1970). Lippard is often cited as an important figure in the understanding of artists working from a discourse-dependant perspective of Conceptual Art (see Goldie and Schellerkens, 2007b, p.xi and Cook, 2016, p.15-16).

Stephen Willats wrote extensively about his homeostatic models of art, as well as providing a platform for artists to discuss and disseminate ideas surrounding information and cybernetic theories in relation to art. His journal, titled Control, will provide ample material for clarifying earlier approaches to information from a decidedly British perspective.

As of equal importance are the social system theories of Niklas Luhmann. His Art as Social System (2000), provides an interesting development in information and systems theories.

The writings of Dominic McIver Lopes, including articles edited by Floridi (which I will come to later), would help reveal the sources of Floridi’s approach to digital art practice.

Likewise, the work of Margaret Boden on creativity from a computational perspective would be of great importance, as we shall see.
Finally, *Philosophy and Conceptual Art* (Goldie and Schellerkens (eds.), 2007a), which brings together both Lopes and Boden, in a volume that will provide the foundations of how discourse-dependant art is to be approached in relation to philosophy.

### 3.2 Floridian resources

With regards to a list of available literature by Floridi, the first source of information approached was the publications listing at the Oxford Internet Institute.

During the initial phase of this project, I noticed the listing of “Aesthetics between the wars: Art and liberation” as a chapter in the *Cambridge History of Philosophy* (see Floridi, 2008d) written by Floridi. As the book itself listed Floridi’s contribution as “The renaissance of epistemology”, his assistant was contacted for verification. It was later confirmed that Floridi was indeed the author of “The renaissance of epistemology” and was not involved in the writing of “Aesthetics between the wars” (At the time of submission, the webpage has changed to “Sensible appearances” by M. Martin, of which Floridi was also not involved in writing).

Due to its inaccuracies, I decided to seek an alternative source of available literature. Floridi maintains his own website ([www.philosophyofinformation.net](http://www.philosophyofinformation.net)), but the list of publications is very selective. I later found two sources that appeared to be most useful: the citations page of Google Scholar and Academia, a platform for academics to share research papers ([https://oxford.academia.edu/floridi](https://oxford.academia.edu/floridi)).
The amount of material discovered meant that a change in strategy was needed to navigate the wealth of information available.

*Worldcat*, the global catalogue of library collections mentions *Tutto Leonardo a Milano* (1988) as one of the first books with text by Floridi. Although such a book is certainly of interest, the subject matter, year of publication and its lack of availability in the United Kingdom meant that I was required to find an alternative starting point.

The first piece of text reviewed in this project was Floridi’s PhD thesis from the University of Warwick (Floridi, 1990). Although the content is extremely complex, it provides a fascinating insight into the way he constructs his thinking.

*Scepticism and the foundation of epistemology* (Floridi, 1996) contains an interesting analysis of Karl Popper’s theory of knowledge (Floridi, 1996, p.112-116 and p.291-307). The book itself is based on revised versions of his MPhil thesis and journal articles. This point was useful in deciding how I should approach the rest of his works, as his books on information also consist of revised peer-reviewed journal articles.

*Philosophy and Computing* (Floridi, 1999) provides one of the first insights into the beginning of what would become the philosophy of information (see ibid., p.ix and p.225).
Sextus Empiricus (Floridi, 2002) is in the genre of a history of philosophy with an aim “to map out the history of Pyrrhonism” (Floridi, 2002, p.viii). It was thus omitted from this research.

Floridi provides a useful diagram showing how his books on information relate (see Figure 1). Information (Floridi, 2010a) and later, The 4th Revolution (Floridi, 2014), thus provide an introduction to the series, with the former mapping out what is meant by the term ‘information’ (see Floridi, 2010a, p.2). The Philosophy of Information (2011) lays down the “conceptual foundations of the series” (Floridi, 2011, p.xii). Readers interested in the list of 22 journal articles which the book is based should refer to Floridi (2011, p.xvi).
"The Ethics of Information" (2013) “investigates the foundations of the ethics of informational organisms” (Ibid., p.xiv). The 39 journal articles that constitute this book are listed at Floridi (Ibid., p.xviii-xix).

Floridi (2011) and Floridi (2013) have been described as philosophically Germanic in that they are written in the perspective of a “post-analytic-continental divide” (Floridi, 2013, p.xiv).

Figure 1 suggests that initially, his Principia Philosophiae Informationis was to be in four volumes. This is also mentioned in Floridi (2013, p.xiv). During the Digital Life Symposium at Exeter College (Floridi, 2018d) however, Floridi mentioned that his work on information would end with The Hermeneutics of Information. This was confirmed by a tweeted image showing what is called The Foundations of the Philosophy of Information (see Figure 2).
The Logic of Information (forthcoming) will not be reviewed in this project.

Of the books edited by Floridi, there are six that have been selected due to their contents:

The Blackwell guide to the philosophy of computing and information (Floridi, ed., 2008a) contains, amongst other things, a chapter on Digital Art by Dominic McIver Lopes (Lopes, 2008, pp.106-116).

Similarly, Katherine Thomson-Jones provides a chapter on “Art and the information society” in The Routledge handbook of philosophy of information (Floridi, ed., 2016b).

The other titles reviewed in this project includes chapters from: Philosophy of computing and information: 5 questions (Floridi, ed., 2008c); The Cambridge handbook of information and computing ethics (Floridi, ed., 2010b) and; The Onlife Manifesto: Being Human in a Hyperconnected Era (Floridi, ed., 2015a).

Only the most relevant articles from Philosophy and Technology, a peer-reviewed journal edited by Floridi, were explored for this project. This includes the special issue of Philosophy and Technology titled ‘Rethinking Art and Aesthetics in the Age of Creative Machines’ (2017).

The literature suggested above will thus form the starting point from which further articles will be approached and analysed.
4 Methodology

This study will take the form of desk research in the sense that I will be analysing documents relating to Floridi and art. A breakdown of the key components will be made from selected literature of Floridi with the aim of clarifying some of the terms and concepts used and seeing whether it is applicable to art.

A selected historical study will be made examining the development of issues surrounding art practice of the period described above. According to Pickard (2007, p.168), such historical analysis is concerned with reconstructing the past, identifying pieces of a puzzle and putting them together to provide insight and understanding of a situation.” Likewise, this phase of the project will not be a comprehensive survey of all avenues of art practice but a piecing together of parts that could potentially be compared with Floridi’s concepts.

The reasons behind this choice of methods is that the former will provide the conceptual understanding for the second phase of research, whilst the latter will help establish a space in which the former could be applied. It is envisaged that any assumptions made will be open-ended. The skills required in implementing this project will include information seeking and retrieval, evaluation, critical analysis and research synthesis (Pickard, 2007).
In 1965, Jasia Reichardt was encouraged by Professor Max Bense to organise an exhibition exploring “the connections between new art forms, and the uses of computers” (Reichardt, 1968b, p.3). Reichardt subsequently gathered together a group of consultants, including Mark Dowson, who became the project’s technology adviser (Ibid, p.4). Dowson was leading “the design and development of complex teaching/learning systems” for Systems Research Ltd., a research company directed by Gordon Pask (Ibid, p.4).

The exhibition, *Cybernetic Serendipity*, had taken three years to prepare and became the second show at the newly opened Carlton House Terrace address of the Institute of Contemporary Art in London (see Institute of Contemporary Art, n.d., p.1). Studio International provided a catalogue in the shape of a special issue of its magazine; though much of its content was devoted to computer graphics (see Reichardt, 1968a).
The show was divided into three sections: the first, a show of computer-generated graphics, music and computer animated film; second was the show of painting machines and remote-control robots; and the third, dealt with the history of cybernetics through a display of machines (Reichardt, 1968b, p.1). Contemporary accounts revealed that it received a mixed reception: comments ranged from those who were interested in the history of computing to refutations of the show as an exhibition of art (see BBC, 1968).

In the summer of 1969, a year after the exhibition closed in London, an article by Michael Apter (1969) attempted to establish the value of applying cybernetics to the analysis of visual art. Apter started with the idea that works of art may be categorized as a “complex dynamic system” which in certain ways, appears “similar to the functioning of a developing organism” (Apter, 1969, p.263). He explained that an understanding of the information flow of this system may help practitioners improve their technique.

Examples were given, covering the idea of influencing the acceptance of machines as art; machine creating art; and art existing as a process. It ends with a rather unexpected suggestion: proposing that it may be the case that cybernetics itself is an art form (Apter, 1969, p.264). A definition of art was never actually offered by Apter, other than its implied meaning through suggestions of aesthetic fulfilment in the models produced for science.

In the following decade, one of the most noticeable demonstrations concerning the influence of cybernetic and informational theories could be found in the projects of Stephen Willats. Willats practice included social investigations, theoretical models and traditional exhibition displays. His writings were published in a series of books but were mainly collected in a periodical titled Control.
5.2 Art and social function

“The shift away from a Machine Age Culture towards the Cybernated age leaves the artist in the position where change in the areas of operation... becomes essential... Hence the artist might find his role as the programmer of areas of randomness triggering creative behaviour, the audience becoming all important and not just an afterthought” (Willats, 1968).

*Control* was brought together by like-minded artists to “rethink the artists’ relation to society” (Willats, 1968). The journal (first published in 1965) began as a vehicle for presenting participatory artworks and earlier issues were heavy influenced by behavioural and social sciences. Our interest here lies in issues printed after 1970, which contain articles by various contributors with emphases on thoughts about art practice and the adoption of cybernetic and informational theories.

Jack Burnham’s influence through his use of Ludwig von Bertalanffy’s general systems theory is apparent throughout issue six, printed in 1971. An article by artist Stroud Cornock points at Burnham’s remarks as a sign of a “growing acceptance of... ‘systems approach’” in art (Cornock, 1971).

Cornock’s intention was to establish the function of art as a system by drawing distinctions between static values and dynamic relationships. For Cornock, art as system must operate autonomously from the envelope of the art market. He identified four different communication models which lay beyond the field of “modern art as a morphological continuum” (Cornock, 1971):
5.2.1 The dynamic artwork as a system

The first model demonstrates where the organisational dependence of the piece of art includes part of the environment. To clarify, Cornock differentiates the indeterminate factors which affect such art from the likes of certain kinetic art, where the function is established by factors inherent in the result of an artist’s labour (Cornock, 1971).

5.2.2 The reciprocal artwork as a system

Cornock’s second model treats participants as “basic switches” (Cornock, 1971): the dependent relationship between the viewer and the artefact is represented as a simple feedback loop. In such pieces, the information flow between the artist and the artefact is restricted once it is displayed. This category is perhaps the most familiar example of audience involvement. We shall see later how it is also a category which is most commonly mislabelled as ‘interactive’.
5.2.3 The participatory artwork as a system

There is a similarity between the participatory model and the reciprocal model. Only here, the information flows are between agents. The histories of such audience participations are often filled with illusions of free expressions - an example would be the facial punch received by Joseph Beuys during one of his Aktions (see Abdullah, 2016). Since the structures of these events are often predetermined, a genuine space does not exist for artists and participants to be mutually creative. Cornock narrows this definition by suggesting that the flow of information is therefore between the participants and “a matrix” (Cornock, 1971).

5.2.4 The interactive artwork as a system

The last model is perhaps the most challenging. Cornock speculates that the artist could be disregarded once the matrix has been specified through the anticipation of a learning system. This is made possible through the idea of homeostatic principles.

“Homeostasis is defined... as the ability of an organisation (system) to maintain itself in a stable state of equilibrium, given a change in some dependent condition, from either within its own fabrication or that of its environment” (Willats, 1974, p.11).

The Artist as an Instigator of Changes in Social Cognition and Behaviour (Willats, 1973) expanded on many of the ideas presented in the pages of Control. Willats believed that in order to escape the commodification of art, the artist should encourage mutual engagement with a wider audience (Ibid., p.1). By analysing social constructs, the artist could perform catalytic changes in certain aspects of social environment (Ibid., p.1). As a
constructor of models, the artist would operate outside of the institutional framework as the art now requires a complex system of interactivity (Ibid., p.1).

Willats devised a series of diagrams demonstrating the possible state of change in such speculative systems. The model consists of nodes, each of which represents a changing value capable of affecting the relationship of other nodes. The flow of information, indicated by the arrows, is of importance because the artist cannot presume an equal frame of reference between participants and themselves (see Willats, 1973, p.26).

The basis of Willats’ theories is borrowed from the thinking of the celebrated cyberneticist Gordon Pask. Unlike Willats, Pask believed that life exists in the conflict between closed constructions and open interaction (see Rocha, 1996).

Pask gave a talk on *Joy and Innovation* at *Cybernetic Serendipity* and exhibited an interactive mobile that was designed “for an aesthetically potent environment of a sociological type” (Pask, 1968). The exhibit relied “heavily upon lessons learned in connexion with *Musicolour*”, a cybernetic model from one of his earlier projects (Ibid.).

His lesser-known theory for the study of interaction (see Zeeuw, 2001, p.978 and Pask and Zeeuw, 1992, p.11), is of importance to this paper and we will look further into this at a later stage.

Figure 6: Possible states of change in a speculative system (Willats, 1974).
5.3 Art in the works of Floridi

“[Human beings] are homeostatic information patterns, bent on resisting all forms of entropy, thermodynamic and metaphysical” (Floridi 2013, p.310).

It is perhaps a sign of things to come that Floridi’s doctoral thesis at Warwick University opens with fragments from text-based displays by the artist Jenny Holzer. The inscriptions were part of an exhibition organised by the Stedelijk Museum, Amsterdam in 1990 (see Floridi 1990). That same year, Holzer became the first woman to be the sole representative in the US pavilion at the Venice Biennale which was awarded the coveted Leone d’Oro for Best Pavilion (see Caruth, 2008).
Floridi was undoubtedly aware of art exhibitions from the early stages of his academic career and despite what was to become the start of a global economic decline, Holzer’s work, like many New York based artists of the time, mirrored the “slickness and surface” of the 80’s era (Harrison, 2003, p.82). Towards the end of the 90’s, having written several guides on computing and the internet for philosophers in Italian and in English (see Floridi, n.d.), Floridi was to start on what was to become a Philosophy of Information (Floridi, 2011, p.xii).

Art has been mentioned in passing throughout his writings, though in most occasions, references are made to more historical artistic efforts:

“As a simple example, we could study the presence or absence of the two popular figures of Heraclitus, the weeping philosopher, and Democritus, the laughing philosopher... the patterns becomes even more interesting once we notice that during the seventeenth century the two Greek philosophers were portrayed in many Dutch paintings” (Floridi, 1999, p.108).

“Computers may never fail to read a barcode correctly, but cannot explain the difference between a painting by Monet and one by Pissarro” (Floridi, 1999, p.216).
“Philosophers are more akin to individual explorers of the depths, and are more likely to proceed by removing rather than augmenting, reminding one of Michelangelo’s definition of sculpture, the art of ‘taking away’” (Floridi 2014, p.21).

In Philosophy and Computing (Floridi, 1999), Floridi compares the perception of databases with the definition of art from Plato’s Republic, (Ibid., p.110). Floridi describes this “aesthetic approach” as a form of naïve realism, where “only physical entities and their perceptible properties are genuinely and authentically real” (Ibid., p.110).


Floridi reasoned that “if a computer can produce Picasso-like pictures… - albeit routinely by digitizing a photo… and then processing an abstraction of it - then… at least Picasso’s… originality is inimitable” (Floridi, 2013, p.173).

Of chapters where the main topic was not exclusively about art, within the books edited by Floridi, Jean-Gabriel Ganascia mentioned Walter Benjamin’s The Work of Art in the Age of Mechanical Reproduction (Ganascia, 2015, p.81). He spoke of a digital aura that would be useful in interpreting generative art, where evaluation is only possible “with respect to the number of possibilities that a program can generate” (Ganascia, 2015, p.85). Due to the limits of the chapter, he did not expand on his thinking.
In 2016, Floridi was a keynote speaker at the 56th annual conference of the British Society of Aesthetics (BSA). His presentation was listed as ‘The Beautiful Glitch’ on the society’s website, although Floridi also refers to it as ‘The Informational Nature of a Work of Art’ (see Floridi, 2016a). While no known recordings exist of the proceedings, the society was able to provide a photograph of the BSA Vice President, Dr Stacie Friend with Floridi standing in front of one of the PowerPoint images of his talk.

The painterly image behind them happens to be the result of a project called The Next Rembrandt, a collaboration between Microsoft and the Rembrandt House Museum of Amsterdam. The image was also used in a discussion with John Searle later that year and the project was discussed in the paper Artificial Intelligence, Deepfakes and a Future of Ectypes (2018b), which is one of his first to focus specifically on issues surrounding art.
The question of forgeries, replicas and artists editions is something which Floridi would undoubtedly have been acquainted with, albeit indirectly (see Harr, 2006). The 2018 paper opens with a discussion on the concept of authenticity in art and mentions the research paper by Elgammal, Kang and Den Leeuw proposing a computational approach for the analysis of strokes in line drawings (Floridi, 2018b, p.318).

Floridi introduced the term *ectype*, one of his many neologism throughout his writings. Not all these terms are of significance to us here and I shall only discuss some of the more relevant Floridian terminologies in the following section.
5.4 Floridian terminologies

5.4.1 Infosphere

The infosphere is the totality of Being, hence the environment constituted by the totality of informational entities, including all agents, along with their processes, proprieties, and mutual relations. (Floridi 2013, p.65)

The term *infosphere* came into being around the 1970s (Floridi 2014, p.40-41). For Floridi, the infosphere should not be viewed as a “virtual environment supported by a genuine ‘material’ world” (Floridi 2010c, p.9-10). Once we interpret the world informationally, the concept could be taken to be synonymous with reality (Floridi, 2014, p.40-41). The purpose of this neologism is to shift our perspective of the world from a materialist outlook to an informational one:

![Figure 9: The shifting of perspective (Floridi, 2010c, p.9-10).](image)
Moreover, this shifts our knowledge of the world to a knowledge of its informational structure. *Informational ontology* is not the same as *digital ontology*: the ultimate nature of reality is not digital and we do not live in a universe that is a gigantic computational system (Floridi, 2011, p.316).

Unlike the term *cyberspace*, the infosphere is all encompassing: it includes our offline and analogue spaces of information as well as its many sub-regions like cyberspace (Floridi, 2010c, p.6; 2013, p.6; 2014, p.40-41).

“*[T]he information society is better seen as a neo-manufacturing society in which raw materials and energy have been superseded by data and information, the new digital gold and the real source of added value. Not just communication and transactions then, but the creation, design, and management of information are the keys to the proper understanding of our hyperhistorical predicament*” (Floridi 2013, p.17).

Another important point to appreciate is that of *enveloping*. In engineering, an *envelope* is the “space that defines the boundaries within which a robot can work successfully” (Floridi, 2014, p.144). The interior space of a refrigerator could be seen as its envelope - keeping the door open would thus affect its ability to work successfully. As we will later discuss, because of the limitations of our current technologies, “enveloping the environment into an ICT-friendly infosphere has started pervading aspects of reality... we have been enveloping the world around ICT for decades without fully realizing it” (Floridi, 2014, p.144).
This shift inside the infosphere has thus led Floridi to view communication-based interpretation of the information society (see Luhmann, 2000) as being outdated, since the very fabric of our reality is altering (Floridi 2013, p.17). This change is what Floridi calls re-ontologizing. Where ontology is to be understood as “the world as it appears to, is experienced by and interacted with, the agent in question” (Floridi, 2010d, p.277). Not only has our recent technology re-engineered the world around us, but it has fundamentally transformed our infosphere and our very way of being (see Floridi 2010c, P.6 and 2013, p.6).

The most obvious way in which ICTs are re-ontologizing the infosphere concerns the transition from analogue to digital data and then the ever-increasing growth of our informational space. (Floridi 2013, p.7)

### 5.4.2 Agents/Inforgs

The term agent is used, because it could be either natural or artificial (Floridi 2014, p.94). We are not, however, talking about some futuristic cybernetic organism (or Cyborg) that is part human and partly mechanical (Floridi, 1999, p.209). Instead, what Floridi has in mind is a view of humans as informational organisms (or Inforgs), “mutually connected and embedded in an informational environment (the infosphere), which we share with other informational agents, both natural and artificial” (Floridi 2014, p.94). This is the world where we share an informational environment with Alexa, Cortana, Siri and Google Assistant, as much as we do with a cat, dog or the odd rodent. And as technology moves further, merging with what was once an analogue-offline world of things, we are no longer ever offline, but living an “onlife experience” (Floridi 2014, p.43).
“[E]very existing entity - humans, other animals, organizations, plants, non-living artefacts, electronic objects in cyberspace, pieces of intellectual property, stones, Platonic abstractions, possible beings, vanished civilisations - can be interpreted as potential agents that affect other entities, and as potential patients that are affected by other entities” (Ward Bynum, 2010, p. 37-38).

Thus, Floridi’s philosophy can be seen as non-anthropocentric, especially in relation to his theory of Information Ethics (see Ward Bynum, 2010, p. 37-38). As one of many kinds of inforgs, we “may be treated like commodities that can be sold and bought on the advertisement market” (Floridi 2014, p.98). As commodities of the infosphere, we could end up becoming hyperhistorical serfs.

What makes us different from artificial agents is the way we process data. “Humans are the only semantic engines available” (Floridi 2014, p.161). We never perceive data without any form of interpretation but always in semantic context (Floridi 2014, p.161). Artificial agents on the other hand, from the basic desktop to the most sophisticated smart technology are “syntactic engines, which cannot process meaning (Floridi 2014, p.161). As John Searle had argued, “the syntax does not cause the semantics at any point” (Fritt Ord, 2016).
5.4.3 Level of abstraction

How we come to view ourselves as agents sharing an infosphere is through a method of abstraction. ‘Level of abstraction’ (LoA) originates “from modelling techniques developed in an area of Computer Science, known as Formal Methods” (Floridi, 2008c, p.91 and Floridi, 2013, p.30-31). Floridi’s use of the concept was developed with a former colleague, Jeff Sanders (Floridi, 2013, p.xvii) and an introduction to the concept can be found in the works of systems scientist Edsger Dijkstra and David Parnas, a pioneer in software engineering (Floridi, 2013, p.29).

The basic premise of the concept is rather simple, and it is significant a way of studying a system by abstracting all other variables:

“LoA consists of a collection of observables, each with a well-defined possible set of values or outcomes... [e]ach LoA makes possible a determinate analysis of the system” (Floridi 2013, p.31).

We can therefore build different models for the same system depending on the LoA we choose to describe it because “the choice of the type corresponds to a decision about how the phenomenon is to be regarded” (Floridi, 2008c, p.91). Following Floridi’s example of how a car battery could be analysed (see Floridi, 2011, p.77), a painting could be viewed as follows:
Figure 10: An example of level of abstraction.

From a philosophical point of view, “specifying the LoA means clarifying, from the outset, the range of questions that (a) can be meaningfully asked and (b) are answerable in principle” (Floridi, 2011, p.347-348). It “qualifies the level at which a system is considered” (Floridi, 2016d, p.52-53). Overall, it could be reasoned that “many uninteresting disagreements might be clarified, if the various interlocutors could make their LoA explicit and precise” (Floridi, 2016d, p.52-53).

LoA could therefore be viewed as “depending on a frame of reference,” but Floridi stresses that such a subjective position need not be relativistic, where the values are qualified by a point of view, but only relational, where the values are not arbitrary so far as we make explicit the LoA (Floridi, 2016d, p.52-53). It is our frame of reference that changes and not the observable (Floridi, 2013, p.33). Viewing art informationally, therefore,
requires a change in our world view. “Such a change is made possible by the method of (levels of) abstraction” (Floridi, 2013, p.29).

Floridi explained that relativism could be avoided by embracing the view that we can only know our representations of the world (Floridi, 2013, p.3). An example of this would be Luhmann’s constructivist approach in Art as a Social System (2000). The alternative is to take charge of our conceptual constructions, but to avoid relativism, we must accept that constructivism, like that of Luhmann’s social systems, is ill-conceived (see Floridi, 2013, p.3). Philosophy, for Floridi, is constructionist, and the task of the philosopher is that of conceptual design (Floridi, 2013, p.2). The term constructionism, according to Floridi, came from the computer scientist Seymour Papert and his work on the psychologist Jean Piaget’s constructivism (Floridi, 2013, p.176).

5.4.4 Presence

An example of Floridi’s application of the method of abstraction is the case study he made on the concept of presence (2013, p.36-51).

The notion of presence is of great importance to art theory, as it is indeed, with philosophy, where “some classic issues... could be easily re-conceptualized as problems concerning (tele)presence” (2013, p.36).

“Heidegger without the semantics of presence would be inconceivable, and Christian theology has been struggling for centuries with the idea of omnipresence as one of the most significant of God’s attributes” (Floridi, 2013, p.36).
Floridi acknowledges Marvin Minsky as having pioneered the study of presence (2013, p.34). It is commonly understood as “a type of experience of ‘being there’”, especially in relation to some form of mediation (Floridi, 2013, p.34).

What is unique to Floridi’s analysis is the idea that presence is based on successful observation. So, where a local space of observation and a remote space of observation is different, that ‘thing’ “observable at a given LoA in a local space of observation... is also telepresent in a remote space of observation if and only if [the ‘thing’] is also observable in [a remote space of observation] at a given LoA” (Floridi, 2013, p.43).

Floridi uses a live television show with a phone-in participation, as a common example: whereby speaking through a telephone to the show presenter, you are present in your own home and telepresent in the studio (through your voice) that you can observe via the television at your home and the audience in the show can observe in the studio. The “two LoA may but do not have to be identical” (Floridi, 2013, p.43).

Floridi goes on to clarify our understanding of telepistemecs, which could be “understood as a way of making the observed locally present” (Floridi, 2013, p.50). In relation to presence defined as successful observation, making something epistemically available locally is completely different from “being present in [a] remote space as an entity” (Floridi, 2013, p.47). To put it simply, looking through a pair of binoculars doesn’t make you present in the space you are seeing, but neither would pulling down a wall between the room you are present in and the next. In the latter, according to Floridi, you will not become “telepresent in the next room; you are merely present in a larger room” (Floridi, 2013, p.47). This is important as, contrary to what the term ‘surfing the web’ appears to imply, we are in reality “downloading those spaces into one’s own” (Floridi, 2013, p.47).
5.4.5 Semantics

Floridi’s insistence that information must be truthful could be deemed challenging and further scrutiny of this will be provided in the next chapter. Here, I will merely try to clarify the terminologies.

Semantic content is not necessarily semantic information, hence semantic content does not have to be truthful (Floridi, 2018c, p.5). “When data are well formed and meaningful, the result is... known as semantic content” (Floridi, 2010a, p.34).

“What matters is... whether that content provides a person holding it with the means to give meaning to something and embed that meaningful something into a more general narrative that makes sense to that person” (Floridi 2018c, p.5-6).

When semantic content is false, we could simply call it misinformation. When the semantic content is an intentional lie, this become disinformation (Floridi, 2010a, p.50). As semantic content, semantic information, that is, a truthful semantic content, could be instructional or factual (Floridi, 2010a, p.34). Semantic content could be factual without being entirely true, like that of a false story concerning a situation. We could potentially deduce information (that is, elements of truth) out of the story, but the content itself remains false. The story is only considered factual semantic information if it is entirely true (Floridi, 2010a, p.49-50).
Furthermore, for semantic information to become knowledge, it must also be *relevant*. So, in order to interact successfully among ourselves and within our environment, we need a constant flow of *relevant* semantic information for us to process (Floridi, 2011, p.244).

Floridi has recently given us a further neologism - semantic capital. The term arrives from Pierre Bourdieu’s categorisation of *economic, social and cultural* capital (Floridi, 2018c, p.1): all of which belong to the “domain of production, distribution and consumption of valuable goods, services or social positions” (Floridi, 2018c, p.3).

“There is a wealth of resources - including... [the] arts... - that we produce, curate, consume, transmit, and inherit as humans. We use this wealth - which I shall define more precisely as *semantic capital*” (Floridi 2018c, p.1)

In a recent symposium, Floridi expressed that semantic capital is what gives meaning to and makes sense of our existence, of the reality that surrounds us (Floridi, 2018d). It is not the only thing that defines who we are and how we see ourselves, “but it is certainly what defines *only* us” (Floridi, 2018c, p.5). By this, he means that animals and artificial agents cannot have semantic capital (Floridi, 2018c, p.5).
Animals have narrative “within which meaning is embedded” (Floridi 2018c, p.5), but as far as we know, they don’t make sense of their existence. Artificial agents can “only handle syntax, not even meaning”, so they cannot define who they are on their own terms (Floridi 2018c, p.5). The only way an artefact can enrich an experience with an interpretation is if we humans use it to make sense of our existence (Floridi, 2018d). So, something like a collection of art could be said to give us a sense of meaning or help us make sense of the world (Floridi, 2018d).

“Semantic capital is better studied from a multidisciplinary perspective, combining cultural studies, hermeneutics, history (of art …), just to mention some obvious disciplines (Floridi 2018c, p.8).

But what we make sense of, could be reinterpreted differently at a later date. Nothing in the narrative changes, rather, it is our point of view casting a new light on the very thing that has remained the same. Floridi adapts an Aristotelian term, Anagorisis, to mean a form of re-adaptation we make to ensure that the meaningfulness of the narrative we have in our life is consistent (Floridi 2018d).

The growth of semantic capital is through its interaction. At its best, it is both productive (therefore, creating further usage) and appreciated (as in, giving us value). More importantly, the increasing use of smart digital technologies to manage and edit our semantic capital could generate new forms of semantic capital for us (Floridi 2018c, p.16). This in turn, affects our realisation of our reality.
5.4.6 Ectypes

The term *ectype*, as used by Floridi, refers to “a copy that has a special relation with its [archetypal] source” (Floridi, 2018b, p.319). They could be authentic unoriginal artefacts - where something is made from its source but not in the same method, or inauthentic original artefacts - where content received is considered as matching, but not arriving from its source (see Floridi, 2018b, p.319-320). This is especially relevant with digital processing, where a copy is a clone, with all the properties of the original.

When something digital is broken down into elements, its reconstruction could bring about something novel. Here, Floridi used *The Next Rembrandt* project as an example. It has all the elements of a Rembrandt depiction of a person, but the image is constructed through the “visualisation of data” collected from a selection of Rembrandt paintings (see Microsoft News Centre Europe, n.d.).

Another example used by Floridi is the vocalisation of John F. Kennedy’s last speech through a process of analysing recordings of his speeches and reconstructing extracts to the script prepared before he died (see CereProc, 2018).
6 Analysis

6.1 An analysis of interactivity

In the earlier parts of this paper, we saw that the interactive model was noted as one of the most radical of communication models. Interactivity, however, is perhaps one of the most common misnomers found within the world of art.

Pask was an important figure as he established a more accurate model of interactivity through his communication theories. Paul Pangaro (n.d. a) described the variety of systems Pask had built; which incorporated ideas of cognition, learning and conversation.

_Musicolour_ was a light show that responded to sound, but the system was not of a simple reactive model. The system was designed to respond to change, where the value of change had to be constantly evaluated. Likewise, in a Paskian model, interaction is defined by higher order goals. Hence, participation becomes a conversation between participants as opposed to a simple programmed reaction (see Pangaro, n.d. a). Following this, Pangaro pointed out that the key to a Paskian model is novelty, since a conversation must involve the unexpected, “resulting in an emergence of new possibilities” (Pangaro, n.d. b).

Similar to this Gaugusch and Seaman (2004) reacted to the fact that ‘interaction,’ as a term, is itself misleading since the prefix ‘inter’ suggests a separation. They came up with the replacement term ‘reciprocal action’ to imply a continual conversation without the perceived separation.
Participatory models from a host of artists working within the system of fine art from the 1990s onwards have led to an excitement demonstrated by writers and theorists expounding the rise of interactivity. This labelling has occasionally been contended by the artists themselves (see Gillick and Bishop, 2006, p.97). Despite this, Coulter-Smith and Coulter-Smith (2006) have offered an interesting comparison of interactivity between fine art and computer art.

The projects of Rirkrit Tiravanija were used as an example because of their inventive simplicity in bringing art into everyday life. Criticism of these strategies lay in their lack of any creative game "except the game that the artist is playing [with the viewer]" (Coulter-Smith and Coulter-Smith, 2006 p.173). Because the participants were essentially restricted to simply react to a predetermined structure, it was concluded that these actions simply referred back to the original language game of Marcel Duchamp.

Coulter-Smith and Coulter-Smith identify the problem of interactional models in art within its “tradition focus on the artist-genius” (Coulter-Smith and Coulter-Smith, 2006, p.169) and the commodification of the artistic product. This perceived function of art severely hinders its attempt at encouraging creative involvement.

In a survey conducted by Willats and Kevin Lole (Willats, 1975, p.16), the function of art was put to the test by questioning people with indirectly formed perceptions of art. What they discovered, was potential conflict in the answers received:
“A high proportion of interviewees considered they had a painting or sculpture in the home, [but] they did not choose to refer or describe it when asked to name an artist…” (Willats, 1975, p.16).

Likewise:

“Having in the main acquired the work of art as either a present or buying it, they largely served the function of decoration, which affirms the conflict brought about in the question concerning intentions of the artist, and how people regard works of art” (Willats, 1975, p.16).

Willats saw this as an indication of the failure of traditional visual strategies to find a more involving role when compared with the other arts (e.g. music). But the surveys, conducted in suburban housing estates, give an inaccurate picture of indirectly formed perceptions. The subsequent rise of the leisure and tourism industry has distorted the very way art is consumed. In doing so, it has triggered the momentum that has helped to create an environment that is more involving for the viewer. The question is, has the perceived function of art really changed in any way?

Figure 11: Posthumous displays of pieces by Nam June Paik, pioneer of video and performance art, in Seoul 2008 and 2016 (photos by the author).
Pask’s emphasis on conversation could be considered challenging when faced with the current level of syntactic engines: Floridi himself has been a judge at the annual Loebner Prize, where the latest computer programmes are put through the Turing Test (Floridi, et al. 2009). That is not to suggest that computers are incapable of conversation, as we are not insisting on a processing of semantics, but a model reliant on notions of conversation must still be problematic, nonetheless.

Within Floridi’s Routledge handbook of philosophy of information (2016b), Thomas-Jones has argued that “interactivity of even the strongest kind can be found in decidedly non-digital art context”, but such cases are often esoteric in nature (2016, p.376). In digital art, such as video games, she explains, strong interactivity is not only common, it is an expected feature (Thomas-Jones, 2016, p.376). But is this really interaction that involves learning or merely programmed reaction?

Thomas-Jones quoted the work of Dominic McIver Lopes for a definition of interactive art, whereby: “a work of art is interactive just in case it prescribes that the action of its users help generate its display” (Thomas-Jones, 2016, p.379, see Lopes, 2010, p.36). She adds that by definition, “a sculpture that we have to move around to view... [does] not count as interactive... [as our] active engagement... does not constitute the generation of the work’s display” (Thomas-Jones, 2016, p.379). But applying Lopes’ theory of interactivity to non-digital art would be a mistake, as his definition is tailored specifically to computer art (Lopes, 2010, p.36). Besides, this view negates the possibility of vandalism as an accepted form of active engagement.
“The trouble with “interactivity” isn’t that it’s meaningless. The real trouble is that it means too much - it means so many different things in so many different situations that it’s hard to come up with a one-size-fits-all definition” (Lopes, 2010, p.36).

To Lopes, a conversation is interactive but computer art “isn’t interactive in that way”, and “[n]either is it much like social interaction, though [some computer art] involves social interaction among many users” (Lopes, 2010, p.36).

Dominic Preston, writing in Floridi’s journal *Philosophy and Technology*, is concerned with Lopes’ “ambiguity between… cases where a display varies over time, and cases where a display varies because there are multiple, varied instances of it” in relation to its properties (Preston, 2013, p.270). Preston suggested, for sake of clarity, that Lopes’ definition should to speak of *display type* (Preston, 2013, p.271). It is also apparent, Preston continues, that although Lopes “goes to some lengths to lay out the properties possessed by displays, it is less clear what properties the [interactive] artworks themselves bear” (Preston, 2013, p.272).

Within the writings of Floridi, the best definition I could find comes from a chapter in Van den Hoven and Weckert’s *Information Technology and Moral Philosophy* (2008):

A transitional system is *interactive* when the system and its environment (can) act upon each other. Typical examples include input or output of a value, or simultaneous engagement of an action by both agent and patient - for example gravitational force between bodies (Floridi, 2008b, p.53).
A similar definition is given in *The Ethics of Information* (Floridi, 2013, p.140), although the example used is that of a robot in a car plant. These rather vague explanations of reciprocal action suggest the idea that a level of abstraction plays an important role in how we see our interactions (see Floridi, 2013, p.30). Interactivity is therefore relational and dependent on a specific frame of reference.

In a passage that quotes the writings of Murray, Floridi later identifies the three pleasures of digital environments as that of *immersion, agency* and *transformation* (see Floridi, 2013, p.172). He adds the further pleasure of *interactivity*, as the vision of what defines telepresence in the infosphere (Floridi, 2013, p.173).

Interactivity would invariably presuppose a sense of presence, and the shift in Floridi’s model of presence to “an external and objective evaluation” necessitates a clear definition of the LoA adopted (see Floridi, 2013, p.44). To demonstrate this, we can utilise an example of a participatory art by Santiago Sierra. In 1988, Sierra hired a truck driver to block off one of Mexico City’s busy roads for five minutes (see Sierra, 1998 and Sierra, 2012).

To those travelling along the same route, there would have been no reason to believe they were playing a part in a piece of art unless they had prior knowledge of the event (for the sake of simplicity, I will ignore the likelihood that someone would have a random ‘eureka’ moment and somehow distinguish their inconvenience as an element in a piece of art.).
This scenario is a piece of art because, from a level of abstraction defined by Sierra, it is now something for us to observe. Moreover, the observer from the art world ‘sees’ the scenario, at a given level of abstraction, as a participatory piece of art, although they are in no way involved in the remote event.

From a Floridian perspective of telepistemicks, the frustrated drivers, who were unknowingly present at the event, has moved to the art observer’s local space as visual information, even though such a space is still remote to the driver in their car.

Imagine that you were one of the drivers behind the truck, pressing on the steering wheel: in the ensuing cacophony of car horns, which form the aural element of the event, you have now been abducted into the informational space of the art world. This can be seen as a case of an “imposed backward presence” (Floridi, 2013, p.51). This informational space is thus created by the interaction, but your material space remains the same. You have not been transported into the space of the observer as a material entity: instead, it is a duplicate of an element of your informational self that you have lost (see Floridi, 2013, p.50).
6.2 An analysis of veridicality

Let us consider an assemblage titled *Clock (One and Five) English and Latin version* by Joseph Kosuth (see Tate, n.d.). It is a typical assemblage from one of his early Proto-Investigation projects influenced by the theories of linguistic relativity (see Alley, 1981, p.399). Kosuth has, at times, suggested that philosophy could be succeeded by conceptual art (see Goldie and Schellerkens, 2007b, p.x), but his understanding of philosophy leans rather closer to analysis than Floridi’s approach of design and modelling (Wilde, 2007, p.120). Floridi reminds us that “metaphysics is that LoA-free zone where anyone can say anything without fear of ever being proved wrong as long as the basic law of non-contradiction is respected” (Floridi, 2011, p.60). The same could easily be said of art as philosophy. Indeed, Sol LeWitt, a contemporary of Kosuth, has commented that conceptual artists are more like mystics as the source of their ideas is often opaque (see Costello, 2007, p.105). Goldie, however, has maintained that such assemblages raise “many interesting philosophical questions about representation [and] about tokens and types” and is therefore beneficial to the advancement of knowledge and understanding (2007, p.168).

“This work consists of a clock, a photograph of this clock on the same scale, and three blown-up photographs of entries from an English-Latin dictionary for the words ‘time’, ‘machination’ and ‘object’. It is one of a series of works comprising a real object such as a clock, a chair or a hammer, together with its photograph and one or more entries for words relating to descriptions or definitions of it taken from dictionaries (usually dictionaries from English into another language)” (Alley, 1981, p.399).
Typical of the sort of conceptual art from the period, it comes with a list of instructions in the form of a certificate, where “[o]wnership was dependent on possession of the ‘instructions’” (Alley, 1981, p.399). The assemblage is constructed by gallery assistants, following the instructions provided whenever it is displayed (see Wilde, 2007, p.129).

“The photographs should be apparently casually push-pinned to the wall. Important: if your wall is noticeably different than the wall in the photograph of the clock which you received then it must be rephotographed. The photo of the clock must be identical to the clock and its surrounding wall. The lighting and reflections on the clock and in the photo of the clock should also be as close as possible.” (Alley, 1981, p.399)

Images can have semantic content (see Fallis, 2016, p.335). The photograph of the clock and the actual clock may appear the same, but hardly anyone would suggest using the photograph to tell the time, even if it is more likely to be correct twice a day. In such a scenario, Floridi reasons that “one is still informed [of the time],” that is to say, they now hold the information, “although one can no longer be said to know the time” (Floridi, 2011, p.269-270). The image could be said to affect our knowledge, but not constitute semantic information as such (see Floridi 2011, p.269). Such “accidental truths do not count as disinformation,” as “Floridi requires that disinformation be inaccurate” (Fallis, 2016, p.339).
As for the actual clock itself, it is merely calculating from the point it was activated. We noted earlier that for Floridi, it is only information if it is accurate semantic content. Assuming that it was not the intention of the clockmaker to mislead, it cannot be considered as disinformation either. In his definition of factual semantic information (Floridi, 2010a, p.50), Floridi would appear to suggest that “it makes more sense to say that visual information is simply more or less accurate” (see Fallis, 2016, p.335). Such simplified information is not entirely inaccurate, however. Instead, it should be seen as having a high level of abstraction (see Fallis, 2016, p.344). As Fallis had pointed out, Floridi suggested that rather than true data, we speak of data being veridical “and, like accuracy, veridicality comes in degrees” (Fallis, 2016, p.344).

The blow-ups of dictionary entries offer a range of possible types from our folk ontology of ‘time’, ‘machination’ and ‘object’. Similarly, within the other assemblages in the series, we have ‘Wall’, ‘Tables’, ‘Chairs’, ‘Plants’, ‘Hammers’, even ‘Mirrors’ and ‘Windows’ to name but a few (see Kosuth, et al., 1973).

Let us suppose that an assistant happens to have the dictionary entries muddled up. To Kosuth, the display is no longer art, as it contravenes the certificate that is said to qualify it as art. In terms of information, if we associate the juxtaposition as a reflection that they belong in the same category, then we could say that this is misinformation, or holding no information at all. But this is where the level of abstraction is of importance, as it could hold valuable information to others - in this case, it could be the assistant’s comprehension. This is why the “level of abstraction at which one is evaluating epistemic relevance need to be kept clear and fixed in the course of the analysis” (Floridi 2011, p.260).
At a given level of abstraction, the system observed is treated as a reference model: “We never check semantic information against some fact, we check it against other semantic constructs” (Floridi, 2011, p.203-204). So, for example, in the case of Joseph Beuys and the myth of being shot down as a pilot in the Luftwaffe, the narrative, which his art is constructed around supports his work as a system.

Yet, as observed by Carolyn Wilde in *Philosophy and Conceptual Art* (2007, p.132), what is at stake here is not the words - in this case - ‘time’, ‘machination’ or ‘object’, but “the [very] meaning of the concept of art itself.”

Let us imagine that a couple of art tourists are visiting a new city. They have a fair knowledge of contemporary art but are not art professionals in any form. They wander around and through an error of judgement, mistake a perfectly regular phenomenon as art. They later tell their friends, who are equally unaware, about their experience and they in turn tells their other friends and so on.

This mythic work constructed in the minds of our couple and later transmitted to others now operates within the system of art at a certain level of abstraction. It does so because the couple, as observers, were applying the social codes of the system. The only difference is a practitioner has the intention of making others categorize an element as art. The laymen, in this particular scenario, categorized an element in error.
When a similar scenario was posed as a question and published online ten years ago, viewers suggested all sorts of replies, including one which suggested that the true piece of art holds economic value. This is nonsense, as we shall see in the next sub-chapter, as what people are willing to pay for has little to do with truth-values.

According to Mark Coeckelbergh (2017), writing in Floridi’s journal *Philosophy and Technology*, the above view could be seen as subjective as it is socially constructed. “Art is what we call art, what we decide art is, what we agree to call art... depending on the individual, or it is a matter of collective agreement and institutionalization” (Coeckelbergh, 2017, p.292).
An alternative is the view that “there are objective criteria for deciding whether or not something is art” (Coeckelbergh, 2017, p.292). This could be a matter of rules to which the art is judged or even a precise definition of aesthetic values (see Coeckelbergh, 2017, p.292).

From a Floridian perspective, this could be seen as another matter dependent on the level of abstraction. Coming back to our inattentive assistant: supposing that, whilst working on a display of Kosuth’s Proto-Investigations, they now mixed up the photographs, objects and dictionary entries. Even if they kept to one of each, there could be numerous possibilities. As we discussed earlier, the display would no longer be considered genuine, but they are using the very same elements that make up the genuine displays. Could this be considered as a new work of art if the assistant’s action was intentional?
6.3 An analysis of a possible ectype

Art, in whichever shape or form, accrues our *semantic capital*. As informational organisms, we create, curate, consume and further communicate art for others to do the same (see Floridi, 2018c, p.1).

According to Evans (2009, p.13), Walter Benjamin's formulation of early Twentieth century filmic montage as “modernist allegory seemed pertinent to considerations of appropriation as a new type of double-voiced art [in the late 1970s].”

Writing at the height of interest in appropriation art, as exemplified by the likes of artists Sherrie Levine, Vicky Alexander and Mike Bidlo, Craig Owens observed that work by such artists is “an attempt to use representation against itself to challenge its authority, its claim to possess some truth or epistemological value” (Owens, 1994, p.88).

Owens believed that the writing of Roland Barthes, especially *The Death of the Author* (1967), was highly relevant to the questioning of originality and the active role of the observer (see Evans, 2009, p.13). Artists generate images through the reproduction of other images.

By the end of the last century and the beginning of this century, curator Nicholas Bourriaud observed that “We can produce a musical work without being able to play a single note of music by making use of existing records” (Bourriaud, 2002, p.158). He continues to say that “[d]eejay culture denies the binary opposition between the proposal of the *transmitter* and the participation of the *receiver* at the heart of many debates on modern art” (Bourriaud, 2002, p.158).
The value of “‘remix’ as a form of creativity” has meant that what constitutes the new has become increasingly flexible (Sandry, 2017, p.308).

But there is something far more interesting emerging from our infosphere today. We are not talking of appropriation, where the semantic capital of others is taken as something of their own work. Neither are we talking of postproduction with its sampling and mixes that attribute to the semantic capital of others through (re)presentation. To discuss what we have in mind, let us first explore the art of Gordon Matta-Clark.

Matta-Clark was a prolific artist active from the late 1960s until his untimely death in 1978. With regards to a history of his life and works, Pamela Lee completed her PhD on the subject and has written extensively on the subject which readers should refer to (see Lee, 2001). The particular project we are interested in here goes by various titles. For sake of simplicity, I will refer to this project as *Fake Estates* (1973-1974).

*Fake Estates* came to life in late 1973 when Matta-Clark and his assistant started purchasing small inaccessible slivers of land from New York auctions:

“They were... left-over properties from an architect’s drawing. ... Buying them was my own take on the strangeness of existing property demarcation lines. Property is so all-pervasive. Everyone’s notion of ownership is determined by the use factor” Matta-Clark (see Fend, 1997, p.55).
All the deeds, maps and photographs were kept in a box. This was later passed on to Norman Fisher, who died a year before Matta-Clark. Taxes went unpaid and eventually, the box was returned to his widow, Jane Crawford:

“... the box contained many tiny, loose, close-up photos of grass and dirt and cement, and innumerable legal documents, I was completely dumbfounded” Crawford (Matta-Clark, et al., 2005, p.52)

As some of his friends vaguely recall, the box containing the documents was brought out at some of his loft parties (Matta-Clark, et al., 2005, p.51). Others have mentioned that a few of the photographs documenting the project were displayed in their artist-run space back in 1974 (see Matta-Clark, et al., 2005, p.54). The first proper recognition of the project came in during the 1985 retrospective at the Museum of Contemporary Art in Chicago, where the catalogue listed it as “Fake Estate, illustrated by a single map” (Matta-Clark, et al., 2005, p.54). It was only in 1992, with the retrospective at the IVAM Centro Julio Gonzalez which toured at the Serpentine Gallery in London, that the material was recognised as ‘art’, with some documents included in the display and catalogue (see Matta-Clark, et al., 2005, p.54).

According to Pamela Lee, “[his] archives were not in any shape to be systematically gone through. What I told [curator] Nancy [Spector] - in response to her suspicions/concern about the provenance of the works, when they were actually made, and when the objects were assembled - was that when I was going through the files, there was no pretension whatsoever
on Jane’s part. She said that she herself had reconstructed the images, and then mounted them on whatever support to present as the object. She was completely matter-of-fact about her hand in making this into “a work” (Matta-Clark, et al., 2005, p.57).

Our concern here is not whether this collection, assembled posthumously from Matta-Clark’s original documentation, is art. Here, we are not dealing with the historical or materialistic notions of reality but that of information. I am more interested in whether we could consider this collection, which was later exhibited together for the first time in 2005, as a non-digital ectype.

Fake Estates is obviously not a copy: it was assembled from the information gathered from its original documentations. But Kennedy’s last speech was also constructed from recordings of Kennedy’s voice to the script of the speech he would have given. Thorough investigation was made to ensure that the right documents from the Matta-Clark archives were presented together, just as researchers working at the Rembrandt House Museum scanned through multiple paintings to construct their Next Rembrandt. If it is to be considered an ectype, what sort of ectype could it be?

If we call it an authentic unoriginal assemblage, then we are saying that it was in the style and content of a Matta-Clark - which it could be, since he was very flexible with his projects. Then again, we would also be saying that it was not original in terms of what he had in mind. This is more difficult to prove as stories conflict, but there were mentions of the process he envisaged the collection to follow (see Matta-Clark, et al., 2005, p.45). If we say it was an inauthentic original assemblage, then we are questioning the process but not the intent. 
An interesting observation on originality and what is means to be authentic was presented by Byung-Chul Han. Han explained that in seventeenth century Europe, art from the antiquity were not necessarily “restored in a way that was faithful to the original. Instead there was massive intervention in these works, changing their appearance” (Han, 2017, p.66). The “epistemological value” of what was deemed to be original had later rejected the interventions and alterations (Han, 2017, p.66-67).

Han noted that in the Far East, there is the “special practice of persisting creation” (Han, 2017, p.30). Using the Terracotta Warriors workshop as an example, he demonstrated that what was being produced was not seen as forgeries, but a resumption of production (Han, 2017, p.30). This is possible because of several factors: The first is within the difference concepts of a copy.

Figure 13: Example of fangzhipin at the Dafen Oil Painting Village in Shenzhen (photo by the author).
In Chinese, a copy could be a *Fangzhipin* (仿製品): this I would translate as an ‘imitation’ and Han notes that “the difference from the original is obvious” (Han, 2017, p.60). Another version of a copy is *fuzhipin* (複製品): this translates as a ‘duplicate’ and according to Han, they are “exact reproductions of the original [and are held in] equal value to the original” (Han, 2017, p.60). This notion of duplicate over imitation parallels with the concerns of a copy in the digital element of the infosphere, which is where Floridi’s examples of ectypes were created. Another concern is that of modulation (see Floridi 2014, p.31).

The aim of modulation is not uniqueness, but a form of constructionism that allows variations and further modulations (see Han, 2017, p.68).

“The famous Chinese treatise on painting, the *Manual of the Mustard Seed Garden*, contains... component parts from which a painting could be composed or indeed assembled” (Han, 2017, p.68).

*Fake Estates* is certainly made up of components: maps, deeds, the accumulation of tax notices, photographs, stories and many personal accounts. Should the content of the new presentation be seen as an imitation of what it had been, a duplicate of what it was, or neither?

There is a further concept which could be of importance to the exploration of ectypes, that of *Shanzai* (山寨): “the Chinese neologism for ‘fake’” (Han, 2017, p.72).
“Initially the term was applied to cell phones. *Shanzai* cell phones are forgeries of branded products such as Nokia or Samsung. They are sold under names such as Nokir [or] Samsing… But they are actually anything but crude forgeries” (Han, 2017, p.72).

Han explains that in most cases, *shanzhai* products are characterized by flexibility, where the “new emerges from surprising variations and combinations” in the form of a mash-up (Han, 2017, p.72).

Han believes that *shanzhai* “illustrates a particular type of creativity” (Han, 2017, p.72). This notion of creativity is important: if *Fake Estates* is an example of an ectype, then what type of creativity is it, indeed, what type of creativity is an ectype?

Margaret Boden has explained that “a creative idea is one that is new, surprising, and valuable” (Boden, 2007, p.216, also Boden 2010, p.29). Boden studied at the Cambridge Language Research Unit where she encountered Pask and his computer-aided learning devices (see Floridi, 2008c, p.2). To Boden, there are two different senses of the new:

P-creativity or involves coming up with a surprising, valuable idea that’s new to the person who comes up with it. It doesn’t matter how many people have had that idea before. But if a new idea is H-creative, that means that (so far as we know) no one else has had it before: it has arisen for the first time in human history. (Boden, 2010, p.30)
Boden was talking about human psychology, “where the ‘P’ stands both for ‘person’ and for ‘psychological’” and ‘H’, that of human history (Boden, 2007, p.217). If we apply this to the Floridian hyperhistory, P-creativity could become A-creativity, where ‘A’ stands for ‘agent’, artificial or natural, and H-creativity could become I-creativity, that is, something that is novel to the infosphere. So, every instance of creativity in the infosphere is also special at an agent level. To paraphrase Boden: “since every [I-creative] idea is [A-creative] too, we can always ask what type of [A-creativity] was involved” (Boden, 2007, p.217).

Boden lists three types of creativity which are involved in generating new ideas, of which exploratory creativity could be seen to be significant to ectypes:

- **Combinational creativity**: “Generation of unfamiliar combinations of familiar ideas”;
- **Exploratory creativity**: “Existing stylistic rules or conventions are used to generate novel structures (ideas), whose possibility may not have been realized before the exploration took place”;
- **Transformational creativity**: “Some defining dimension of the style, or conceptual space, is altered – so that structures can now be generated which could not be generated before.”

*Figure 14: Diagram showing Boden’s three types of creativity (Boden, 2007, p.219).*
We could argue that psychological-creativity could not be simply relabelled as agent-creativity. We can also say that in the case of the *Next Rembrandt*, it was the programmers who chose Rembrandt as an envelope for the program. But the question of ectypes is not whether machines can make art. This is something which Floridi might call, “old questions” (see Fritt Ord, 2016). What Floridi was proposing, by introducing the neologism of ectype, was a definition of the type of art machines are making. The two examples Floridi gave both utilise enormous data sets to achieve a high degree of verisimilitude. What Floridi has reminded us is that computers operate through syntax with ease on things that would require a skill and intelligence for humans, and this is of great importance:

“It’s extraordinary ability to do things differently from us - it would take intelligence on our side, it doesn’t on the computer’s side... We are just realising that a lot of the things we do require zero intelligence. Driving a car can be done by a totally stupid entity - if it is a computer; in my case, it requires some intelligence” Floridi (Fritt Ord, 2016)

This is not to say that we will not have human information organisms attempting to master skills that a machine could process with ease. After all, the art of painting realistically did not die with the advent of photography. This emphasis on process could be interpreted as the importance of constructionism (see Floridi, 2013, p.173), where the difference is purely informational.
To paraphrase a question concerning intelligence by Simon Head, “if [machines] do not have [to make art] close as ours, what kind of [art] do they have, and should we think of inventing concepts of [art] which accommodate what they do?” (Fritt Ord, 2016).

Floridi’s proposal of ectypes could be seen as one of these concepts. What really matters is whether, through the interest of rule-based art in the late twentieth century (see Rose, 2005), we are to make an envelope for computers to make art?

In the case of the *Next Rembrandt*, it could be yes. With *Kennedy’s Last Speech*, the emphasis is more of a collaboration between the artificial and the natural. Floridi has often stressed that working towards a cooperation between artificial and natural agents is the preferred future.
7 Conclusion

7.1 Replying to the research questions

This research began with the aim of answering questions regarding the relevance of Floridi’s Philosophy of Information to the way in which art is practiced today. Let us first remind ourselves of the three research questions proposed earlier:

- What are the themes and concepts of Floridi’s philosophy?
- How do they relate to contemporary art practice?
- How could Floridi’s philosophy influence future art practice?

To answer the first two questions, let us take a look at the six key themes and concepts, outlined in chapter five, that are of significance to contemporary art practice:

**Infosphere**

Firstly, we recognised the shifting of our perspective away from a materialist stance and towards an informational one. This highlights the informational structure underlying everything around us, including analogue data which is still growing, and equally the digital data that now surrounds us. By negotiating this shift, we acknowledge that art is not just a matter of communication and transaction, but we could be actively creating, designing and managing art as data and information.

**Agents/Inforgs**

Secondly, as we become more connected informationally with our surroundings, each entity plays an equal part in our existence. We humans are no longer seen as the centre of our environment, but what makes us different, for now and possibly in the foreseeable future, is the way we perceive and process data. Our ability to process meaning is what makes us unique compared with syntactic engines, but it is also our hindrance. Tasks which we find difficult could be easily
processed by an entity that has no awareness of meaning, but when meaning is of significance, the human mind, depending on the individual, is where we are able to lead.

**Level of Abstraction**

The third point is that by abstracting all other variables, we clarify what it is we can meaningfully enquire. The constructivist social systems thinking of Niklas Luhmann (2000) might have clarified the notions of distinctions and the self-maintaining nature of the art system. A Floridian constructionism, however, with its emphasis on design and modelling, is more suitable for the task of actively engaging with art at a creative level.

This level of abstraction, where meaning is relational, is also the source of much confusion, however. In section 6.1, we saw that Floridi only offers a simple description of interactivity, as a more accurate definition is dependent on the level of abstraction. And yet, the term is used freely throughout his text. Elsewhere, and although not a subject of this study, Floridi says “there’s no such thing as artificial intelligence” (see Fritt Ord, 2016), although he has contributed to numerous journal articles about AI as they are situated in the way other people use the term.

**Presence**

In identifying the notion of presence as successful observation, Floridi has suggested the idea of an imposed backward presence. The significance of this in art is the recognition of the informational space that is further created through interaction. Furthermore, Floridi differentiated telepresence from that of telepistemecis. This distinction thus furthers our awareness of the boundaries between the local and the remote in relation to what is successfully observed.
Semantics

In terms of semantics, the notion of veridicality which qualifies semantic content as semantic information is certainly intriguing. As already mentioned, Floridi reminds us that, at a given level of abstraction, we reference semantic information against other semantic constructs. This is what we imply when we consider some meaning to be true. In a way, Floridi is reminding us to broaden the scope of the definitions we use: he focuses on information, but not just in relation to the digital; he talks about interactivity, but his attention is not just conversational.

The idea of building on our semantic capital adds further weight to the importance of producing, curating and manage the arts. As something which could give meaning to our existence, the importance lies in the fact it is meaning which makes us different from other informational entities.

Ectypes

Finally, we have the neologism of the ectype. A proposal of a concept which describes one type of art which machines could be making. Because syntactic engines do things differently from us semantic engines, it would be unrealistic to assume that the type of art produced will be something that we recognise in our human-oriented definitions.

To answer the third research question, I would first like to provide a summary which situates art from a Floridian perspective:

Art exists as part of what helps us interpret our existence within a universal informational environment that is negotiated by informational entities that includes, amongst other things, conscious informational organisms and possibly artificial informational agents.
As we saw in section 6.3, Floridi has suggested that our future lies in combining the best of humanity with the best of new technology. It is through our understanding of our shared informational environment that we begin to move forward in our informational era. This is how Floridi’s philosophy could influence future art practice, as it is our digital environment that will be shaping our very way of being. Through working alongside technology, we become co-creators of art and in doing so we can create and model further concepts of art.

In terms of finding examples of art that operate in a way that could be said to model or counter Floridi’s ideas, it is important to remember that we are retrospectively applying Floridi’s ideas to art that already exists. Consequently, we are not implying that the artists chosen held the same views as Floridi when their projects came into being. Neither are we suggesting that they must be in agreement with his philosophical constructs.

The work of Stephen Willats is of interest, not only because of his efforts at applying cybernetic and informational theories in an attempt to further the practice of art. As we have seen in section 5.2, Willats and other artists surrounding the Centre for Behavioural Art were designing and modelling concepts. Unlike Floridi, however, the false promise of a homeostatic ideal provided by Willats is reductionistic in character.

The examples by Santiago Sierra and Joseph Kosuth are interesting in their own right. If we ignore the intention behind the making of such pieces, they could easily be used to model many other philosophical ideas.

With regards to the case of Jane Crawford and the new pieces by Gordon Matta-Clark. Fake Estates, along with the many other projects by Matta-Clark, will always hold a unique place in art history. Peter Fend, who worked with Matta-Clark, revealed further projects that were in development before his untimely death (see Fend, 1997). It would indeed be very interesting to see Matta-Clark’s other ideas developed into fully recognised pieces. As to whether we could consider Fake Estates as an example of a non-digital ectype, that depends on the level of abstraction.
7.2 Evaluation of this research

Whilst this study is directed at the way in which Floridi’s concept design could apply to contemporary art practice, the findings could undoubtedly enlighten and help clarify the Philosophy of Information to other fields of study.

However, as this is not a comprehensive survey of his works, there are limitations as to the accuracy of the conclusions made thus far.

At the time of writing, Floridi has announced the publication of the third volume in his Foundations of the Philosophy of Information series, with another two volumes in progress. Likewise, there are hundreds of journal articles, not all of which are entirely relevant, which could add or indeed change the themes and concepts identified.

The awareness of Floridi’s concepts in the arts is something which we have not touched upon in this study and it remains as something that is still to be understood. Granted it may take some time before this aspect could be properly assessed.

As such, I believe the methodology adopted has been suitable for this study, as it provides a cursory glance at an ever-changing informational space (both in terms of Floridi’s philosophy and of art) as it progresses towards a future that we can only predict speculatively.
7.3 Suggestions for further research

Floridi’s proposal of an ectype would suggest that further research could be carried out in the creation and modelling of further examples of art making that is unique to non-human informational entities.

Furthermore, through Searle’s emphasise on the difference between semantic and syntactic processing, there is the potential to further explore the limits of syntactic engines in creating our understanding of art.

Although I have mentioned it in passing, it would be interesting to expand on the differences between Floridi’s Philosophy of Information and the social system theories of Niklas Luhmann. The origins of both ways of thinking stem from similar fields and yet the outcome is vastly different.

It is possible that as art practice becomes more informationally entwined, a potential role exists for library and information specialists to have a greater part in the creation, design and modelling of future art.

Creative projects like The Next Rembrandt, Jane Crawford’s approach to Matta-Clark’s Fake Estates, and even the recreations by Marina Abramović, show that art creations are utilising archives, libraries and museum collections as a way of furthering the practice of art. As we see more projects using new technology to analyse data from collections, information professionals are in a unique position to take advantage of this interest in data and information.

Furthering awareness of Floridi’s informational approach amongst those in the arts sector could be the first step in creating greater connections between the library and information science and art. In doing so, we could further enrich our increasingly digital semantic capital.
8 Bibliography


British Society of Aesthetics (2016). Photograph of Prof. Luciano Floridi with Dr. Stacie Friend, BSA Vice-President at the 56th BSA annual conference [photo]. Unpublished.


9 Appendices

9.1 Reflection

When I was first introduced to the works of Luciano Floridi, I was both intrigued and confounded by his thinking. I knew I wanted to complete my studies with a broad understanding of his works and chose a dissertation project that I would find challenging.

I was very glad to have chosen the part-time dissertation path, as I needed time to read, think and analyse his complex themes and concepts. As a result, the work plan looked a little different from project proposal, with the review of Floridi’s work stretching far beyond October. Much of this was down to new publications and talks in the latter part of 2018 that were highly relevant to the subject of my research.

It was not my original intention to attend any of Floridi’s presentations. However, I was lucky enough to find a small informal symposium at Exeter College, University of Oxford. This turned out to be of great help to my research as he explained some of his new ideas and directions.

Throughout the course of my research, I actually discovered a better connection between Floridi and art than I had originally anticipated. I knew he was indirectly interested in art history during his studies but was very surprised to see the mention of Jenny Holzer in his PhD thesis. Likewise, the resources I found regarding the works of Willats and surrounding the Centre for Behavioural Art were of tremendous help to me in establishing what I needed to find in the writings of Floridi.

Overall, I believe I have extended my research skills as a result of this study. I have also gained a better knowledge of Floridian thinking, as well as broadened my understanding of the importance of library and information professionals to the art sector. I am confident that all the above will serve me well in my future endeavours.
9.2 Dissertation Proposal

Working Title

Rethinking Art through Floridi’s approach to information.

Introduction

The aim of this project is to explore one of the most fascinating and timely thinkers of our digital era, Luciano Floridi. His Philosophy of Information (PI) and his thinking surrounding the idea of an infosphere has given practitioners within the field of Library and Information Science and Information Technology much thought (Bawden and Robinson, 2018, p.2-5). As we become more reliant on connected digital devices throughout our daily lives, Floridi has engaged in an advisory capacity on the ethical implications of our digital onlife, where the lines of being online and offline are blurred.

Within the field of art, there has been many attempts throughout the 20th and subsequently, the 21st century to link scientific and informational theories with art theory and practice. This is, in many ways, due to the advancing use of technology in art.

Cutting-edge technology has always influenced the course of art practice. Without the invention of portable tubes of paint, for example, we would probably experience landscape paintings from the Impressionists quite differently. The development of silkscreen printing in the 20th century and its adoption to commercial art of the 1950s and 60s had a profound effect on the rise of pop art both sides of the Atlantic. This is most evident in the vivid large-scale prints of Andy Warhol (Rieland, 2014).

From the post-war periods of the 20th century, we have seen increasing collaborations between artists and scientists in exhibitions, such as Software (Burnham, 1970) and Cybernetics Serendipity (Reichardt, 1968), to research projects, such as the Art & Technology program organised by the LA County
Museum of Art. The most profound effect of the latter could be seen in the works of James Turrell (Adcock and Turrell, 1990, p.61-84).

While artists working with computers, which later evolved into art practice that is labelled digital art, is often seen as an obvious link between art and information theory, the effects of information theory and its close cousin, cybernetic theories have influenced artists from a variety of backgrounds.

This project will try to re-evaluate this history and see how the thinking of Floridi, especially his emphasis on data, could in some way effect the way we approach art practice.

The idea is to find out how art is situated within the infosphere and whether there are any current practices which relates to Floridi’s thinking.

This project rests upon an existing body of study about art practice, pursued through a selective literature review of the works of Floridi. It builds upon these prior explorations by aiming to situate art practice in relation to contemporary informational theories, and by informing the way we view contemporary art practice beyond existing theories to include the advances of our hyper-historical age.

**Aims and Objectives**

This project aims to review Floridi’s concept of information as a model for art theory. There is also lesser secondary aim of finding examples of art that operates in a way that could be said to model or counter Floridi’s ideas.

The objectives of this project are as follows:

To identify aspects of Floridi’s concepts and ideas and to analysis them to determine the key themes and potential problems;

To compare and contrast the concepts and ideas of Floridi with theories and ideas from the field of art as it has been practiced from the late 20th century to its present day;
To establish whether a focus on the ideas and concepts of Floridi could influence the development of art practice and whether this is of importance in view of the way art is practiced today.

**Scope and definition**

The emphasis here will not be limited to artistic outputs that are classed as ‘digital art’ and includes a look into past attempts at introducing information theory to art practice. Moreover, the area of interest could be defined as starting from the theories and practice of the post-1960s period, an era described by Lucy Lippard as a period of dematerialisation in art practice (Lippard, 2007), through the interactions that are said to reflect Nicolas Bourriaud’s relational aesthetics at the beginning of this century (Bourriaud, 2002), to present day art practice.

Furthermore, the definition of art will not be limited to any particular style, practice or shared qualities other than the fact that something, regardless as to whether it is even a thing, has been defined as art.

Although it is an area that will be partially explored, this project will not be focused specifically on what Frank Popper has termed ‘technoscience-art’, that is, artworks which are established by “scientific methodology and technological processes to the extent that the scientific properties… constitutes its central idea” (Ahmedien, 2018, p.4).

There are several papers that looks at the development of information theory and art, though the majority focuses on its relation to the development of computer art or net art and the digital art that follows.
In terms of the writings of Floridi, I will start my investigation from some of his earliest journal articles dating back to the mid-1990s, working my way through his published writings before delving further into works disseminated online. At this stage, I will only be surveying works that are written in the English language.

**Research Context/Literature Review**

The initial phase of this project will start with the earliest of Floridi’s writings which examine the role of Scepticism in philosophy. This is to establish the foundations of his philosophical approach and to see if there are any recurrent themes in his current works. I will then make my way through a selection of journal articles he has written, much of which surround the subject of information and data. Books and chapters will be the next port of call followed by any relevant writings or interviews found online. I will, of course be reviewing a selection of relevant secondary sources to help me develop a better understanding of his concepts and ideas.

Having made a cursory glance at the list of his published works on the Oxford Internet Institute website, it would appear that Floridi has rarely mentioned art in his many papers. He was a keynote speaker at the British Society of Aesthetics annual conference in 2016 and I understand he spoke about art from an informational point of view, which some attendees found of interest (see Floridi, 2016 and Jones, 2016). Floridi is also the editor-in-chief of the journal Philosophy and Technology, which had an issue in September 2017 themed around the rethinking of art in the age of creative machines (see Gunkel, 2017). There is a chapter within the Routledge Handbook for Philosophy of Information by Katherine Thomson-Jones on Art and the information society, but the emphasis is solely on practices labelled as digital art (Thomson-Jones, 2016).

The most notable example of describing art with information models is the works of Max Bense (see Nake, 2012). I feel it is important to revisit Niklas
Luhmann’s Art as a social system as there are strong links between his communication concepts and information theory. Likewise, Stephen Willats’ Art as Social Function and the early systems related works of Hans Haacke is also of relevance in this enquiry. I do not wish to name many artists and collaborations at this early stage as I feel it could unintentionally influence the path of this investigation.

I feel the body of literature mentioned above would be a good point of departure from which to further the enquiry on the theme of this project.

**Methodology**

This study will take the form of desk research in the sense that I will be analysing documents relating to Floridi and art. A critical review will be made on selected literature of Floridi with the aim of clarifying some of the terms and concepts used and seeing whether it is applicable to art. This has been described by Pickard as “a critical discussion of all significant, publicly available literature that contributes to the understanding of a subject” (Pickard, 2007, p.26).

A selected historical study will be made examining the development of issues surrounding art practice of the period described above. Pickard noted that a historical analysis is concerned with reconstructing the past, identifying pieces of a puzzle and putting them together to provide insight and understanding of a situation” (Pickard, 2007, p. 168). Likewise, this phase of the project will not be a comprehensive survey of all avenues of art practice but a piecing together of parts that could potentially be compared with Floridi’s concepts.

The reasons behind this choice of methods is that the former will provide the conceptual understanding for the second phase of research, whilst the latter will help establish a space in which the former could be applied. It is envisaged that any assumptions made will be open-ended. The skills required in implementing this project will include information seeking and retrieval, evaluation, critical analysis and research synthesis (Pickard, 2007).
**Dissemination**

My objective is to complete the research project to a standard suitable for journal publication. Throughout the process of the study, I intend to use twitter as a platform to disseminate work-in-progress thoughts and ideas. This is more of a way to bring undeveloped concepts out into the open to elicit discussion as well as promoting interest in my studies.

**Work Plan**

Having approached the writings of Floridi in previous modules, I see that his prose, especially his use of analogies, adds to the complexity of the text. I have therefore given myself three months to work my way through his writings, including any secondary materials and critiques that I might find.

This initial stage will steer the direction of the second phase which involves finding and analysing works and theories relating to the field of art.

I intent to start constructing the dissertation from the September period, giving me time to juxtapose concepts and ideas with the aim of completing the
writing process by mid-December. This should give me enough time to review and amend any issues encountered, ironing out any loose ends.

As this research is not reliant on the collection and analysis of an abundance of quantitative data, I do not believe a rigid time plan would be appropriate. This idea of keeping to a relatively flexible plan accommodates the encounter of any tangent but relevant findings along the way.

**Resources**

My intention is to obtain the majority of the relevant information on the subjects from web-accessible sources. For printed material, I will be focusing my search from libraries and archives within London, as well as nearby cities within the UK.

There is a possibility that I might make use of a Visual Arts Research Collection whilst in Canada to source materials related to the North American aspect of art development. This will not be an essential part of the research as I intent to use materials supporting my analysis from art collections and archives within the UK.

I do not envisage the need for any special resources to accomplish this research project.

**Ethics**

An external ethics committee will not be required as there are no human participants in this research project. It is not anticipated that any sensitive information will be viewed via the desk research, although this area of enquiry may involve the study of blog posts and social media postings. As far as I am aware, there is no risk that obscene or illegal material may need to be
accessed for this project. Any questionable art forms will not be analysed or described in the writing process.

I will be abiding by the university’s guidance on avoiding academic misconduct and plagiarism by providing sufficient citations during the write up of the dissertation.

Confidentiality

Due to the nature of this proposed research project, I do not anticipate any issues of confidentiality to arise. The literature reviewed will all be readily available as published works or repository holdings. In the unlikelihood that a working paper becomes accessible, permission will be sought from the authors involved before any references will be made. External participants will not be required in the process of carrying out this project and there will be no use of confidential material.

References


Floridi, L. (2016). @Floridi [online] Tweet posted 18 September 2016 06:43am. Available at: https://twitter.com/Floridi/status/777503193618059264 [13 May 2018]


Reichardt, J. (1968). Cybernetic Serendipity, the computer and the arts. London: Studio International. Available at: