Reconceptualizing Superwork for Improved Access to Popular Cultural Objects

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ABSTRACT

In the context of popular culture, a successful work or a work with broad cultural or scientific impact often prompts the publication of many derivative works across multiple formats and by multiple creators, works that share elements with the original work such as topics, characters or universes. We argue for reconceptualization of the “Superwork” entity to aggregate these relevant works into a single bibliographic entity about which facts in the form of metadata, exploitable by library users, can be recorded. In this paper, we aim to conduct a deeper investigation of the superwork concept and establish an initial definition for and some boundaries of the concept. In order to further develop the idea of superwork, we provide a prominent example and explain different characteristics of superwork identified via entity analysis. We conclude by discussing examples showcasing the multiple challenges for conceptualizing and representing superwork.

KEYWORDS

Superwork, Complex work, Multiverse, Popular cultural objects.

INTRODUCTION AND BACKGROUND

In recent years, the trend in creating many derivative and related works from a single successful work has exploded. These sprawling multimedia masses, often encompassing one or more complex narratives, are created by a number of different people or organizations. In some cases, these intertwining narratives are set in settings derived from a “multiverse”—some prominent examples include the Marvel Multi-verse, Gundam, Pokémon, and Star Wars. In other cases, the mass of narratives do not intertwine but are nonetheless related through shared topics, themes, or brands. In this paper, we argue the need for the superwork entity to explicitly connect these different types of relevant works in a conceptual model for bibliographic entities.

One specific area in which superwork entities can impact user access is popular cultural objects such as video games, comic books, manga, anime, music, TV shows, and films (Kiryakos et al., 2017). These objects are a significant part of our cultural heritage and, in their own right, objects of scholarly research. As an integral part of today’s culture, they represent values and viewpoints of our society and people within it which will be important for future generations.

The concept of superwork is not new; in prior research on knowledge organization and representation, several researchers such as Carlyle (1996), Svenonius (2000), Antelman (2004), Smiraglia (2007), Kemp (2008), and Smiraglia et al. (2014) have discussed this concept. Similar or relevant concepts also exist in current bibliographic standards such as FRBR, FRBRoo, and BIBFRAME 2.0. Our discussion builds upon these different ideas and prior definitions of this concept, aiming for a clearer conceptualization of this entity.

In this paper, we aim to answer the following research questions: How do we define superwork as a bibliographic entity? What kinds of properties or characteristics does this superwork entity possess? To answer these questions, we start by examining prior work that discusses superwork or similar concepts and present some prominent examples. This is followed by an entity analysis technique to identify different characteristics that superwork entails. We will then discuss some of the challenging examples to highlight the issues for conceptualizing and representing superwork.

DEFINING SUPERWORK

Existing Definitions

As one of the Group 1 entities in FRBR, a work is defined as distinct intellectual or artistic creation (Taylor, 2007). The work concept was previously discussed through Wilson’s metaphor, “bibliographic family” (1968). As researchers further investigated the associations of work entities, they noted that constellations of works exist in the bibliographic universe (Smiraglia, 2007). This concept that incorporates a collection of works that have different types or iterations was coined by Svenonius
Bibliographic family, specifically describing seven categories of derivation.

More recently, Smiraglia (2007) states that the notion of the superwork describes “the abstract intellectual concept of a given work that is the principle node around which all iterations of that work may be collocated” (p.78) and that superwork is “just an artificial record used to group all of the related work records together” (Smiraglia et al., 2014, p.24). He emphasizes that much more research is required to understand more fully the phenomenon of instantiation (the realization of phenomenon in time that represents a similar or less clear-cut typology of bibliographical patterns or types), a phenomenon which is common among various sorts of information materials including books, artifacts, archival documents, etc.

While the above researchers have used the term superwork in the context of bibliographic objects generally, serials researchers like Antelman (2004) and Kemp (2008) have used the term in the context of overarching super-serials that span across all of the title changes that a serialized work might have undergone during the timeline of its publication. An example of this latter problem in bibliographic control would be Dr. Strange, a work which begins as part of Marvel Comics’ science-fiction/horror anthology Strange Tales (in issue #110), eventually expanding to the point of being the whole of the content of Strange Tales (by issue #169), before being renamed as Dr. Strange (also issue #169), and so a superwork in this sense would encompass some of Strange Tales and all of Dr. Strange. Thus, in the context of serials cataloguing, superwork often refers to the overarching serial work that one or more serial titles label.

Object-Oriented FRBR (FRBR\textsubscript{OO}) takes a more rigid stance on the statuses of various bibliographic entities. As a CIDOC-based effort to reconcile the FRBR conceptual framework with the CIDOC Conceptual Reference Model (CIDOC-CRM), the FRBR\textsubscript{OO} model (Bekiai et al., 2015) provides a rich set of tools with which the bibliographic universe can be modelled. In particular, it provides a hierarchy of sub-classes that represent specialized conceptualizations of works. Among them is entity F15—Complex Work, which the editors define by saying, “This class comprises works that have other works as members. The members of a Complex Work may constitute alternatives to, derivatives of, or self-contained components of other members of the same Complex Work” (Bekiai et al., 2015, p.53). While the term complex work does not evoke the grand scope that a term like superwork does, the definition, scoping notes, and examples provided in the FRBR\textsubscript{OO} document seem to, at first, closely align to the definition of superwork and scope of the examples provided later in this paper, the primary intention of FRBR\textsubscript{OO}’s developers is to model multipart works of authorship, such as Dante’s Inferno which is a part of his larger Divina Commedia and groupings of derivative works\textsuperscript{1}. The FRBR\textsubscript{OO} example illustrated by Figure 1, which showcases how works are realized, might easily be expanded to accommodate some portions of the examples which follow in the section below, e.g., the TV series Mobile Suit Gundam might be conceptualized as a FRBR\textsubscript{OO} complex work. However, given the examples in FRBR\textsubscript{OO}’s documentation (see especially the scope and examples of relationship R10 (has_member) on pp 75-6), it does not seem as though works that are not intended by the creators to be part of another, e.g., the TV series Mobile Suit Gundam and the full size model, RX-78-2 Gundam once on display at Gundam Front Tokyo are to be modelled using the complex work entity model, and so no easy solution can be found using an existing model like FRBR\textsubscript{OO}.

\textsuperscript{1} However, as FRBR\textsubscript{OO}’s F1 Work is a subclass of CIDOC-CRM’s Propositional Object, it is quite likely that none of the derivative work examples will hold up to serious scrutiny since they all revolve around translations and most philosophers hold propositional objects to be language-free (and thereby text-free) abstract objects (cf. Frege [1984] and Russell [1910, 1912, and 1913], among others).
The BIBFRAME 2.0 model (“Overview of the BIBFRAME 2.0 Model,” 2016) also has the potential to represent the concept of superwork. While there are currently no properties that explicitly mention superwork, the hasDerivative and derivativeOf properties, for instance, reflect one of the relationships found in superworks. However, it is unclear from the current documentation if other aspects of superwork can be represented in BIBFRAME 2.0 as is.

Reflecting these varied accounts of superwork (or a similar concept) in prior works, here we define superwork as an aggregate entity that encompasses multiple types of media objects that are related to each other based on:

1. their origins (i.e., derivative works from some ur-work), or
2. shared characteristics, such as theme, characters and world/universe.

**Superwork Examples**

The primary example of a superwork is that of Gundam. The term Gundam originates as the name of a type of giant manned robot in the anime *Mobile Suit Gundam* (1979). A selection of what the superwork currently encompasses can be seen illustrated in Figure 2 which showcases a variety of bibliographic entities that are related to one another through the term Gundam. Figure 2 does not give an exhaustive picture of all of the entities that are members of the Gundam superwork (among other things, the page is missing Gundam video games). One thing that immediately leaps out is that all of the entities are related to one another in some way. However, these relationships are complex, heterogenous, and in some cases, somewhat nebulous or not yet defined.

In a few cases, the relationships between the entities seem as though they are those with which we are readily familiar when we look at the bibliographic world through the lens of the FRBR framework. For instance, *Mobile Suit Gundam* (1979), *Gundam Wing* (1995), and *Gundam SEED* (2002) are all anime series and since they all share Gundam in common, it would be tempting to relate both *Gundam Wing* and *Gundam SEED* to *Mobile Suit Gundam* through the relationship of derivation (one work is derived from another). However, beyond some archetypal mechanical design styles, the overall plot, and the use of the reluctant hero trope, one can argue that *Gundam SEED* is mostly unrelated to *Mobile Suit Gundam*. It takes place in a different fictional universe with a cast of different fictional characters and remarks on some different narrative themes. It may be more accurate to say that *Gundam SEED* was inspired by *Mobile Suit Gundam*. Similarly, *Gundam Wing* differs not only with respect to fictional universe and characters but also with plot, so much so that it would be more accurate to say that *Gundam Wing* is influenced by *Mobile Suit Gundam*, rather than derived from it.
The relationships become even murkier as one goes down the list of entities in Figure 2. The list includes music, and so entities like 機動戦士ガンダム 鉄血のオルフェンズ COMPLETEBEST (Kidō senshi Gandamu tekketsu no orufenzu Complete Best), a soundtrack, are among the things included as members of the Gundam superwork, and while that soundtrack directly relates to another work in the same superwork through a part of relationship, it is unclear how it relates to any of the other members. Similarly, the superwork includes entities which cross the boundaries of other works which are members as showcased in Figure 3 through the Dynasty Warriors: Gundam video game.

Figure 2. Some Entities from the Gundam Superwork

Figure 3 also showcases entities that are members of the Gundam superwork entity but that challenge our normal assumptions with regards to the boundaries of fiction, fictional places, and our own everyday world. We could try to link these entities together through brand, but the Dynasty Warriors: Gundam video game and the WorldPost news article immediately break this linkage too since they are members of other brands (in this case the Dynasty Warriors and Huffington Post brands). Nor can

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2 It is a compilation soundtrack with music from various episodes of the animated TV series 機動戦士ガンダム 鉄血のオルフェンズ (Kidō Senshi Gandamu Tekketsu no Orufenzu) which was originally broadcast from 4 October 2015 to 2 April 2017 on JNN. The TV series is also a distinct member of the Gundam superwork.
we easily link them through agents like creators, since the vast majority of the works have disparate creators. And yet all of the members of the Gundam superwork are related to one another in some fashion through the shared theme of Gundam.

At this point it is fair to ask whether or not a subject access point is sufficient means for users to access these materials. While it may be sufficient means for access, it lacks something that users could find useful and which, when they find lacking, they frequently forge for themselves. This thing is an account of the Gundam superwork. In ordinary library and digital library settings, these accounts are mediated to users through metadata records. It is at this point we turn our consideration to what properties a superwork entity must possess for a user to gain a sense of its nature.

**Properties/Characteristics of Superwork**

To define and set the boundaries of the superwork, we aimed to identify the essential characteristics regarding the properties of superwork or its relationships to other entities. Each was identified by examining select examples of superwork originating from different types of works (for instance, the Hello Kitty superwork, which originated from a character design, or the Gundam superwork we have been discussing up to now, which originated from a TV series, *Mobile Suit Gundam*). Some characteristics were more easily agreed upon amongst the authors, while others led to more prolonged (and sometimes unresolved) discussions. It should be noted that the characteristics listed in this section are meant to form broad boundaries from which the beginnings of a definition for superwork can be established. The authors acknowledge that any practical implementation of a superwork concept, particularly when managed by fans, would need to be somewhat flexible in its boundaries so that it may adequately accommodate the needs of various communities.

A Superwork is a kind of aggregate.

- **hasMember**: Superworks are a kind of aggregate entity. At the very least they stand in a “hasPart” mereological relationship with the individual works that they are made of. More specifically, the individual works that make up a superwork stand in a mereonemic relationship with the superwork. If one models a superwork as the kind of thing that derives its identity from the works that compose it, then this narrower relationship is membership. If one models a superwork as the kind of thing that is constituted of the works that compose it, then this relationship is constitution. If one believes that the works that compose a superwork are brought together through curatorial intervention, then the relationship is the much narrower gathered-into relationship and superworks are identical to bibliographic collections.

A Superwork encompasses multiple works in multiple formats related to one another in a multitude of complex ways.

- **includesFormat**: One key feature of superworks is that they are pan-medium entities. They aggregate objects that are related to one another in some way. Frequently they are related through derivative relationships like adaptation. For example, the PlayStation 2 video game series, *hack//G.U.*, is adapted into both manga and anime formats which retell the story from the video games in subtly different ways more appropriate to their specific mediums. However, sometimes the objects that form a superwork’s parts are related to one another in less clear ways, such as by being inspired by one of the other works in the superwork (e.g., *Mobile Suit Gundam SEED* is inspired by *Mobile Suit Gundam*). One important aspect is that the items in a superwork aggregation are related to one another beyond the curatorial sense of membership or the editorial sense of arrangement (i.e., they are not the same as collections or series). This distinction is important because both collections and series can also bring together works in multiple formats.

A Superwork will frequently contain works by several (and sometimes hundreds of) authors.

- **hasCreator**: Superworks are created and their creators are the creators of the works that compose them. Due to the grand scale of a superwork, it seems likely that they have manifold creators which participated in the creation of the works that compose them. However, it is possible that a superwork may be bound to a smaller, more specific body of work, e.g., the CLAMP superwork which is composed of all of the works created by CLAMP (a group of manga artists formed in the 1980s). During our discussion, a question was raised if multiple works by a single author can constitute a superwork. Considering a case like the Harry Potter series and the movie *Fantastic Beasts and Where to Find Them* (2016), both authored by J. K. Rowling, we believe it is possible for a superwork to emerge based on works by a single author.

A Superwork is aggregated around some theme or group of closely related themes.

- **hasTheme**: While it was clear to the authors that superworks are aggregated around a central unifying theme there was a great deal of discussion and some disagreement regarding the specific nature and granularity of that theme. Some authors argued that superworks were primarily built around shared fictional universes. While some examples, e.g., Holmes’ Victorian London or the Marvel Comics Multiverse seem to bear this notion out, a close inspection of the Gundam superwork showcased that this was not always true. Similarly, some of the authors argued that superworks seem to be built around brands, and examples like the Final Fantasy brand where neither the games in the video game series nor the films are narratively linked together in shared settings seemed to bear this out. But again, the Gundam superwork showcased counterexamples in the forms of the...
Dynasty Warriors: Gundam video game and the WorldPost news article which have different brands from the Gundam brand. Finally, some authors argued that superworks could be built around shared topics but again, the Gundam superwork example showcased counterexamples as it was not the case that Gundam SEED, Modeling Masters: Gundam Weapons, and the WorldPost news article are all about the same thing. They might all share something in common (which we have chosen to call more generically theme) but that shared thing is not aboutness since Gundam SEED might better be described as an example of the Giant Robot genre that discusses the consequences of genetic experimentation and child soldiery. Similarly, the modeling guide is not about Gundam in any topical way but is instead describing tips for kit-bashing, painting, and posing models. Finally, it is not the case that the news article is about Gundam either, rather it is describing a work of art in the DiverCity Tokyo Plaza that just happens to be related to Gundam.

CHALLENGES

Defining the scope and nature of this reconceptualized superwork entity has been challenging, but we remain convinced that users frequently group works together that are related in ways that our digital library systems do not represent. If this were not the case, it is doubtful that the Gundam term would have an entire Wikipedia page devoted to it. Reconceptualizing superwork as an aggregation that primarily reflects something that users believe to be true about the bibliographic universe is a useful goal. Despite such utility, there are many possible pitfalls that we as group grappled with in our discussions about the scope and nature of the superwork entity.

Superworks as (non-)Bibliographic Entities

Superwork as Group 1 versus Group 3 Entities

One of the earliest and greatest hurdles that our superwork reconceptualization ran into was consideration of whether or not the thing we were referring to as a superwork was not better conceptualized as a kind of super-topic. After all, existing cataloging practices and digital information systems have well-developed senses of topical, genre-based, and agent-based access points. While these access points suffice for querying a catalog system we found that they lacked the essential conceptual substance that differentiates bibliographic aggregations from mere search query results—conceptual mass (Palmer, 2004).

While viewing each superwork as a “concept” entity from Group 3 would not be logically inconsistent with some of the arguments that have been made, in practical terms it would mean treating each unique franchise or series as its own subject entity. As these are usually under the control of various authority files, e.g. LCSH, implementation would mean the insertion of countless new subject terms based on each franchise, or the creation of a separate pop-culture authority file for this purpose.

An alternative is to represent the superwork entity as an abstract entity to which multiple relevant works belong (akin to FRBR Group 1 entities). A benefit here would be a more straightforward collocation of these works under the superwork entity rather than users having to access the network of works that may be grouped under a shared concept, place, and other elements.

Superworks as Bibliographic Aggregates

Superworks as Collections

Accepting the position that a superwork groups its members in a way such that they generate some contextual mass among them is not otherwise present when each member is considered on its own naturally leads to the next challenge: ‘Is a superwork a collection?’ While we believe that it is true that superworks have contextual mass like a collection, it is important to recall that the contextual mass of a collection is carefully constructed as part of the curatorial process of selecting items being gathered into the collection (Palmer, 2004). Conversely, the items in a superwork do not seem to be grouped together through the curatorial process of selection. Therefore, it does not seem to be the case that superworks are the same kind of aggregation as a collection.

Superworks as Other Kinds of Aggregations

Similarly, we were forced to consider, ‘If a superwork is not a collection, is it possible that a superwork might be some other kind of bibliographic aggregation, such as an anthology or a series?’ Both of these bibliographic aggregates also have contextual mass and both of them have contextual mass for subtly different reasons. In the anthology’s case, contextual mass is brought about through the editorial process of carefully arranging the works that compose the anthology. In the series’ case, contextual mass is brought about through the authorial (corporate or individual) intention that the works that compose the series be understood as a whole and that they stand in some determined sequential relationship to one another. However, superworks are not assembled by editors and so are not carefully arranged. Similarly, the works that compose a superwork do not necessarily stand in some sequential relationship with one another (although where the work that is a member of a superwork is itself a series, then the works that compose it obviously do stand in such a relationship with one another), and so it does not seem as though there is any authorial intention creating the superwork’s contextual mass.
Specialized Relationships among Superwork Members

Conceptualizing Crossover superworks

There were a few examples that proved even more challenging to conceptualize as superwork. Our first example is the superwork Kingdom Hearts which started with the video game Kingdom Hearts, developed and published in 2002 by Square. What is interesting about this particular example is that it is a crossover of two substantial superworks, Final Fantasy and Disney. Crossover refers to cases where a character from one title appears in another title, or one company’s intellectual property appears in another company’s product based on a negotiated legal agreement (Carreker, 2012). The characters from each of these two superworks (e.g., Cloud from Final Fantasy 7, Mickey Mouse from Disney) appear in this crossover superwork, along with some original characters of the Kingdom Hearts superwork (e.g., Sora, Kairi). While the authors did not have a disagreement on Kingdom Hearts itself constituting a superwork (given the numerous works including figures, soundtracks, novels, etc. that are derived from or influenced by the original game series), it was not clear if the Kingdom Hearts superwork then belongs to the Final Fantasy or the Disney superwork. After much discussion, the authors agreed that the mixed presence of characters from two different superworks in a crossover superwork made it feel unnatural to categorize the crossover superwork under one or the other superworks from which the characters originate.

Considering Spiritual Successors as Part of Superworks

Another challenging task was how to deal with spiritual successors which Lee et al. (2014) define as “a video game designed to be similar to existing game [sic] while distinguishing itself as a separate IP (intellectual property), often created by the same individual(s)” (p.4).3 A good example of this is the video game Dark Souls (FromSoftware, 2011) which is a spiritual successor to an earlier game, Demon’s Souls (FromSoftware, 2009). In this case, the core mechanics of both games are the same, with narratives that involve similar elements such as demons, undead creatures, and cursed characters. While the content of the games is very similar, they were issued under different titles because of legal reasons, more specifically, so that the game could be released for another game console. While the two games are separate brands with different rights owners, many players refer to these games together by the informal “Souls series” title, which encompasses Demon’s Souls, the three titles in the Dark Souls series, and sometimes a similar title from FromSoftware, Bloodborne (2015). As we named brand as one of the criteria for superwork, distinguishing between explicit brands based on intellectual property and unofficial ones defined by users is an important consideration.

CONCLUSION

In this exploratory work, we examined how the concept of superwork has been discussed in previous literature in library and information science as well as cataloguing standards and suggested a set of characteristics that the superwork entity exhibits as an attempt to help define the concept and establish its boundaries. While the authors were not able to come to a consensus on the boundaries of the properties of superwork entities or define all of their possible properties, there appears to be sufficient anecdotal evidence that some form of aggregate entity that groups cultural-phenomenon-related entities together across the divides of authorial intentions, branding, and thematic elements is needed. Additional general boundary questions with regards to bibliographic objects and artifacts also reveal themselves. If a superwork is to be the complete aggregation of all things related to one another through some intention, brand, or theme, then the nature of those things needs to be carefully considered. With regards to all of our high-level and applied bibliographic standards, the ontological status of objects like toy whirlies with Gundam shapes on them or coffee mugs with Gundams painted on them remains vague and ill-defined. We can be certain that these are bibliographic items since they are artifacts that can be described. It seems likely that they might also be bibliographic manifestations since there are many copies. But do they have a status as some kind of bibliographic expression or work? This seems much less clear.

It is clear that further work on the conceptual and formal levels needs to be done to better highlight the implications of including a superwork entity class in our bibliographic standards. In addition, there is also a clear need for a number of user studies to determine how prevalent grouping works together into superworks is among library users and cultural heritage consumers. The next phase of this research will refine our understanding of this phenomenon, especially with regards to how users conceptualize the superwork problem space, what methods they employ to retrieve objects of interest, and how (or even if) superwork entities affect their information seeking behaviors at all. This work will be accomplished through a number of conceptual analyses and user studies, including interviews and card sorting activities.

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3 Lee et al.’s definition is derived from a definition provided earlier by Carreker (2012). It is important to note that Carreker’s definition is not intended for those concerned with creating metadata for the selection and access to video games in a collection through means of bibliographic control.
REFERENCES