Radical Software is a seminal publication that focused on video, specifically portable, amateur systems. It was the result of a convergence of several video artist collectives within the Electronic News Gathering community, activists who wished to bring video technology to the everyday person as a means of dismantling the corporate television paradigm. To this day, they are still some of the only legitimate records of how to operate, repair, and manipulate this now obsolete technology on your own. Indeed, the impetus to create such a publication was based on a dearth of available information from Sony, Panasonic, and other companies that manufactured the technology, perhaps as a means of instilling docility in the consumers so that they would continue to pay for repair services or purchase add-ons. Nonetheless, archives still own works created on portable Video Tape Recorders as documents of an epochal moment in the history of avant garde art and independent news and documentary. Surely this media also still has value as heirlooms and records of the past to those who used portable video in their own homes and at their gatherings.

Besides assessing the value of the content within Radical Software, it is also important to note how its founders later breathed new life into this project. Around 2003, founders Ira Schneider and Davidson Gigliotti decided that these publications, which had a somewhat limited distribution run in the 70s, needed to be digitized for further posterity. Their original intent was simply to create pdf files and to make them available on the internet until Benjamin Wall of the San Francisco Museum of Modern Art urged them to consider creating a database so that these publications could be more easily
referenced and indexed. Wall also suggested that they apply to the Daniel Langlois Foundation for assistance in the project. The result is a robust website that features every issue in its entirety (including snapshots of the very smart layout and graphic design) and a browsing feature that allows you to search by author, title, keyword, year, type (advertisement, critic, essay, interview) and then a drop-down list of all the authors. While my knowledge of pdf is somewhat limited, I'm fairly certain that there isn't a way to search within the document for a keyword because it is actually an image rather than a text document. This leads me to believe that these articles have already been assigned metadata though the schema is not readily accessible to the public.

For the purposes of preserving this digital collection and facilitating access, I am interested in how the descriptive metadata is assigned to each article. Each article contains metadata that is granular enough to contain specific keywords, individuals, and also displays the issue with which it associated. However, the only way to browse each issue as a whole is to view each separate component (articles in pdf) that are grouped together on the webpage for that specific issue. For the purposes of maintaining the issue as a whole as its own holistic object, I think it is very important that there be a link that connects all the child elements (the articles) to a parent (the issue). The issue can also be assigned to a parent in the form of the Volume, and then again to the overall publication. The webpage appears to be the only link, so some sort of hierarchy should be applied to maintain provenance of the original. Furthermore, I think it is important that each article contain information that connects back to the parent file so that subjects, individuals, and so on will point back to these issues and not just the articles as their own separate entities. This issue and volume numbers are contained within the
I am also curious how metadata has been assigned within each article to distinguish between individuals as authors, interviewees, or subjects. I might, for example, wish to view articles that are not just by Nam June Paik but also refer to his work and ideas. A search for Nam June Paik results in all articles associated with him, as author or as subject. Clearly this metadata is already assigned, but I’d like to explore exactly how this is done. I think it is also necessary to ensure that there are ways of identifying where the individual articles were placed within the overall layout of the publication and when they were produced. For added context, an abstract or summary of the work as well as an idea of by whom the article is intended to be used would be extremely useful. In some cases another article is referenced or recommended, so this would also be very useful the record itself.

My wishlist thusly contains the following qualities:

1. Articles from a single issue bound together under the issue title (In EAD, “c03 level=file,” a component at the third-tier level defining all articles in an issue)
2. Issues from a single volume bound together under the volume title (In EAD, “c02 level=subseries,” a component at the second-level tier defining all issues in a volume)
3. All issues and volumes bound together under the publication as a whole (In EAD, “c01 level=series,” component file at the first tier or top level i.e. the publication as a whole)
4. Individuals noted as authors vs. individuals notes as subjects (In MODS, “name” as element or as a subelement of “subject”)

5. Artist themes or artwork titles as topics in an article (In MODS, “topic” or “titleInfo” as subelements of “subject”)

6. Page number of the article to ensure that its maintained in the context of the original printed publication (In MODS contained in “extent” as a subelement of “part”).

7. Dates associated with the publication (In MODS contained in “originInfo” in the “dateIssued” subelement)

8. Possible intended use of the article (e.g. article from Video & Kids issue of Radical Software), such as in-classroom exercises for elementary schools (In MODS contained in “targetAudience.”)

9. Links that point to referenced articles or to places for further reading (In MODS contained in “relatedItem type=reference”).

10. A brief description of the article for quicker browsing (in MODS contained in “abstract.”)

The data structures that I have chosen for these purposes are MODS and EAD. Both are specifically designed for structural metadata and are particularly good for defining this level of granularity. MODS is an excellent schema for bibliographic elements particularly when trying to capture a good amount of granularity but not an obsessive amount such as that found in MARC. MODS is also easily crosswalked to other metadata schemes which is desirable for digital files that are frequently transferred to other cataloguing systems and schemas. All the elements that I am hoping to achieve can be found in this schema which also makes it ideal for this
collection. EAD (Encoded Archival Description) is a standard used in archival finding aids and is well suited for grouping related objects together based on a determined provenance. Though the original document of *Radical Software* is the printed issue, we are now dealing with separate digitized documents that contain metadata which connects them to their siblings. Wrappers are easily assigned to objects such that a hierarchy of series, subseries, files, and items are assigned to the object at different levels.

For MODS I am looking to capture titles (of the article and the associated issue), name types and roles (for authors and subjects, origin info for publishing details as assigned to the publication as a whole), related items (to group the volume and issue as parts) and subjects (as titles of referenced works, topics, and individuals). For EAD I am looking to capture a description of the top-level parent and associated child records (description of subordinate components), wrappers for each subsequent component (given a hierarchical level based whether it is a volume, issue, or article), and descriptions of those components (title and author).

Example 1 diagrams how one would capture the title of the article at hand within titleInfo (subelement: title) and name (subelement: namePart) and associate any other primary details that should encapsulate the article as a whole (originInfo, subelement: publisher). This is then connected to a relatedItem which in this case is the specific issue (1) within the series (volume 1). Within the relatedItem field contains the title of the publications as a whole (within subelement: titleInfo) and also lists the typeOfResource (collection, as an attribute). Lastly, the titles are assigned an attribute of type which can express volume and issue, provided as detail of the part. This maintains that the article
will be connected to Volume 1 Issue 1 as a whole and that it is understood that this particular object (the issue) is a collection (namely, of other articles). Additionally, the intended audience of “elementary school” is placed within “target audience” and page numbers are placed within “extent” as a subelement of “part type=pages.” Example 2 demonstrates the different ways with which a subject can be assigned and how to add an abstract for added context. Since the title is simply the names of the artists, these subjects will give the article a little more depth when one is looking at the record alone. Reference works or titles, cited individuals who are not the author, and topics can be assigned as subelements of the subject.

In turn, the wrapper elements within EAD are used to maintain a relationship between items (articles, issues, volumes) and across hierarchical levels. In MODS we were able to ensure that the articles were attached to the original work manifestation (the issue) rather than an article that served as an independent item. With the EAD schema we can connect articles within the same issue, connect them back to an entire volume, and the publication as a whole. Example 3 diagrams how we can achieve this and how we could continue this record to involve articles from different issues. These related items would be contained within their own issues but still maintain a connection by virtue of the publication. Components (expressed as c01, c02, etc) contain items within the same hierarchy, and subsequent children are represented in subelement component fields. Within each component, you can define descriptions of titles and authors.

It is entirely possible that the Langois Foundation has implemented a similar structure to the existing Radical Software database of digitized materials. While the use
of keyword, author, and title searches are clearly maintained through some sort of MODS or MARC-based system, the tying binds between each individual article and pdf file is still unclear. Since these articles are in their first generation of digital manifestation, it is important that the order of the original is maintained throughout future migrations of the material and through public access. As the title of the publication suggests, the radical context of the publication should be remembered as a movement and as a whole, not simply as separate independent parts.
Example 1:

<titleInfo>
  <title>Reading: Experience Through Video</title>
</titleInfo>

<name type="personal">
  <namePart type="family">Hartonik</namePart>
  <namePart type="given">Peter</namePart>
  <role>
    <roleTerm type="text">author</roleTerm>
  </role>
</name>

<originInfo>
  <publisher>Raindance</publisher>
  <dateIssued encoding="marc" point="start" qualifier="approximate">Summer 1974</dateIssued>
</originInfo>

<relatedItem type="host">
  <titleInfo>
    <title>Radical Software</title>
  </titleInfo>
  <typeOfResource>collection</typeOfResource>
  <part>
    <detail>
      <title type="volume">2</title>
      <title type="issue">6</title>
    </detail>
  </part>
</relatedItem>

<targetAudience>elementary school</targetAudience>

<part>
  <extent unit="pages">
    <start>45</start>
    <end>46</end>
  </extent>
</part>

<relatedItem type="references">
  <titleInfo>
    <title>How To Talk Back To Your Television Set</title>
  </titleInfo>
  <name type="personal">
    <namePart type="family">Johnson</namePart>
    <namePart type="given">Nicholas</namePart>
  </name>
</relatedItem>
Example 2:
<titleInfo>
<title>Frank Gillette and Ira Schneider</title>
</titleInfo>
<name type="personal">
<namePart type="family">Yalkut</namePart>
<namePart type="given">Jud</namePart>
<role>
    <roleTerm type="text">author</roleTerm>
</role>
</name>
<abstract>An interview with artists Frank Gillette and Ira Schneider on their collaborative works in video art and some of their influences</abstract>
<subject>
<name type="personal">
<namePart type="family">Paik</namePart>
<namePart type="given">June Paik</namePart>
</name>
<titleInfo>Wipe Cycle</titleInfo>
<topic>Portable Camera</topic>
</subject>

Example 3:
<dsc type="combined">
<c01 level="series">
<did>
    <unittitle>Radical Software</unittitle>
</did>
<c02 level="subseries">
<did>
    <unittitle>Radical Software Vol. 1</unittitle>
</did>
<c03 level="file">
<did>
    <unittitle>The Alternate Television Movement</unittitle>
</did>
<c04 level="item">
<did>
    <unittitle>Three Pieces: Some Explication</unittitle>
</did>
<did>
    <unittitle>Videotape Piece: Thank You For Presenting Me With A Difficult Problem</unittitle>
</did>
<author>Marco Vassi</author>
</c04>
</c03>
</c02>
</c01>
</dsc>