New Directions for Academic Video Game Collections: Strategies for Acquiring, Supporting, and Managing Online Materials

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Abstract

The work of collection development in academic video game collections is at a crucial point of transformation—gaming librarians are ready to expand beyond console games collected in disc and cartridge format to the world of Internet games. At the same time, forms and genres of video games such as serious and independent games are increasingly important to university instruction and curricula, and the move to online gaming allows university and college libraries to give campus communities access to them. This essay reviews the most significant LIS literature on academic gaming collections and identifies new directions in gaming collection development. The authors then presents specific resources and strategies they relied upon in their recent initiative to transform gaming collection development policies at the University of North Texas, a large, public, research university. Establishing a five-year plan to create a cutting-edge video game collection, the authors concentrated especially on adding new types of games to the collection, working through the logistics of providing online access, and providing opportunities for research and student learning within the university library through the creation of a gaming lab. The essay outlines in concrete terms the next steps academic gaming librarians can take to ensure the continuing relevance of their collections to campus communities, exploring how innovations in collection development can shape the future of this rapidly-transforming field.

Introduction: Collection Development in a Burgeoning Field

The development of video game collections and gaming programs in academic libraries is at a pivotal moment. Since the very idea of developing such collections in academic libraries is still fairly new and is often controversial in itself (Laskowski and Ward, 2010; Levine, 2006; Wood, 2010), the actions librarians take now to lay the foundations of collection development have the potential for enormous influence in the future history of games and gaming in academic settings. Recently, Laskowski and Ward (2009) have explored the opportunities and challenges of creating the next generation of video game collections and gaming services in academic libraries, broadly surveying the special issues librarians encounter in building a game collection. These include determining the demand for video games in academic research and teaching, attaining the hardware to support the use of game collections, navigating acquisition and access issues for this form of media that has not traditionally been collected by academic institutions, providing library support for the use of games in classrooms and other campus settings, and developing a discriminating acquisitions policy that encompasses diverse forms of commercial and non-commercial video games. Setting precedents for the future, librarians establishing the contours of the next generation of academic video game collections

> have the opportunity to grow beyond basic physical collection development and open gaming sessions, and begin developing the next generation of gaming collections and services right now. Libraries have the opportunity to be an active participant in the early stages of campus development of a new generation of gaming technology, learning, and classroom methodology. (p. 267-268)

It is certainly true that academic video game collections are on the threshold of creating new iterations that reflect the contemporary conditions of this field that is, perhaps somewhat paradoxically, in both a state of incipient development and rapid evolution. It is evident, however, that due to the unique qualities of this form of electronic media and communication, academic libraries' video game collections will *always* be on the verge of a new generation, since the forms and the uses of video games themselves transmute quickly in a dialectic relationship with the development of electronic communication technologies. In such a setting, a library that desires to maintain a video game collection that is vital to the needs of the university community must have an approach to collection development that is highly responsive to the evolution of games themselves, the changes in the material hardware supporting the play and study of video games, and the impact of gaming on society at large.

The principal author of this essay is the gaming librarian in charge of a small but growing collection at the media library at the University of North Texas, a large, public, research university in the Dallas-Fort Worth area. The UNT Media Library has recently completed a thorough review of its gaming collection, producing a new collection development policy and a five-year plan for the expansion of our collection. That effort was based on a careful assessment of the current collection, a study of current uses of video games and gaming equipment on campus, and our expectations of how demand for video games in curriculum and research will expand in the next decade. We believe our experience at the UNT Media Library offers valuable perspectives on the current state of LIS scholarship on academic gaming collections and the opportunities and challenges for building vital gaming collections in academic libraries, especially as they take advantage of emerging forms and technologies.

Our approach to collection development has been based on the assumption that video games and the platforms on which they are played will experience extensive transformation in the decade ahead. At the same time, we expect interest in video games and gaming culture to increase across various disciplines at our university. Nevertheless, the current academic demand on our campus for video games and supporting materials is relatively modest, centered primarily in technical disciplines with interests in game design and a handful of courses that address the cultural aspects of gaming. Therefore, as we look to the future of our collection, we strive to establish approaches to collection development that both support projected future demand at our university and respond to transformations in games and the technologies through which they are accessed and played, all in ways that sustain the growth and stability of the collection in the long term. We believe that our reflections throughout this process offer valuable insights into the contemporary situation of video game collection development for institutions that, like us, are working to expand a young collection—or for libraries working to establish a new video game collection in the contemporary climate.

Accordingly, this essay assesses the current state of scholarship on video game collections in academic libraries, especially examining issues of collection development. Then, turning to insights we have gained from our own recent experience of reviewing our collection and establishing new collection development policies, we highlight the most pressing collection development issues facing gaming librarians at present, enumerating resources and best practices to meet such needs. Finally, the essay reflects on future directions for academic video game collections and charts collection development principles that serve their long-term utility and vitality.

Literature Review: Foundations and New Directions

While academic libraries have maintained video game collections for about a decade, there have been relatively few studies that specifically address academic gaming collections, and the field has remained at a preliminary stage, concerned primarily with laying the foundations for gaming librarianship. Produced by librarians involved in pioneering efforts to establish video game collections, such research has focused on establishing essential frameworks for thinking about the functions of video games in academic settings and the special considerations that surround collecting, maintaining, and circulating this non-traditional form of academic media. As such, works on academic video game collections in LIS literature specifically address the following issues; 1) the role of video games in research and curricula on university campuses, 2) the support services university libraries provide to facilitate the use of video games in research and curricula, 3) the selection policies university libraries establish to build collections that serve campus needs, 4) the particular challenges of acquisition, preservation, and continued access amid video games' rapid format evolution, and 5) the role of game collection librarians in shaping the character of video game studies in academic settings. The following literature review examines each article published in a LIS journal that substantively and specifically addresses video game collection development in academic libraries.

An essential work that charts the emergence of game studies—a field that encompasses the design and production of video games along with the study of video games as historical and cultural phenomena—is Brena Smith's 2008 "Twenty-First Century Game Studies in the Academy: Libraries and an Emerging Discipline." Tracing the emergence of academic gaming programs at a number of universities in the last decade, Smith outlines the approach to gaming curricula and research at universities such as the University of Southern California and the University of Abertay-Dundee in Scotland, as well as the DigiPen Institute of Technology in

Vancouver, British Columbia. In such programs, there is a heavy emphasis on game design and significant cooperation with the video game industry, but the programs, particularly that of USC, also address the cultural and historical meanings of gaming (pp. 209-211). Focusing on reference services to support gaming programs, Smith considers primarily the best practices for building a collection of books and serials to support gaming research, rather than a collection of games and game hardware. Consequently, this article's most specific focus is on the growth of academic publishing on gaming and particular resources for both paper and electronic books and serials. Reflecting upon emerging best practices in collection development, Smith notes that the field requires further research on gaming researchers' information-seeking behavior and more forums for gaming librarians to share collection-building resources (pp. 214-217). Smith's article provides an excellent history of the development of serious gaming programs in higher education and a comprehensive view of the emerging field of gaming program reference services.

Elizabeth Tappeiner and Catherine Lyons' 2008 "Selection Criteria for Academic Video Game Collections" is a detailed description of selection criteria the authors devised in building an academic collection of video games at a New York City community college. Recognizing that collection development principles must hew closely to the most substantive academic uses of video games even as selection principles may differ from those applied to traditional collection materials, Tappeiner and Lyons note that, "as video games go mainstream in academia, it is important for academic librarians to establish clear evaluation criteria for selecting and building game collections," which express the particular uses of video games in academic research and curriculum (p. 122). The authors establish four essential categories of selection criteria, examining how the unique qualities of video games shape the implementation of each: 1) practical considerations: physical characteristics and playback equipment, 2) teaching and

learning, 3) content, and 4) historical and cultural value of video games (pp. 123-124). Tappeiner and Lyons make an essential contribution to the most practical aspects of scholarship on video game collection building, establishing a baseline of collection development principles for video games.

The most detailed study of the practical work of video game collection building is Danielle Kane, Catherine Soehner, and Wei Wei's 2007 "Building a Collection of Video Games in Support of a Newly Created Degree Program at the University of California, Santa Cruz," which relates the experience of the UC Santa Cruz Science and Engineering Library's creation from scratch of a video game collection to support a newly-established degree program in computer game design at the university. Of the literature in this field, this article provides the most practical information for institutions planning to build a video game collection since it provides detailed explanations of nuts-and-bolts matters such as cataloging, work-flow practices, checkout policies, shelf-storage strategies, etc. The article also reviews the library's efforts to build the initial collection by attaining a grant from the Sony Corporation. The article's most detailed focus rests upon the selection policy Santa Cruz's gaming librarians devised, which works to ensure the utility of materials for the game design degree program, and, more generally, to choose materials of long-term value to the library based on standards similar to those outlined by Tappeiner and Lyons—especially content quality, compatibility with prevalent platforms and equipment, ease of use and maintenance, and cost. This essay is the most practical treatment of building a video game collection in the LIS literature.

Finally, the most wide-ranging and comprehensive treatment of the topic is Mary Laskowski and David Ward's 2009 "Building the Next Generation Video Game Collections in Academic Libraries," which recounts the creation of the pioneering video game collection at the

University of Illinois, but also surveys new vistas for video game collections. Laskowski and Ward authoritatively establish the broad parameters of how video game collections function in an academic setting. Consequently, their article focuses carefully on how such a collection must be constructed and maintained to support diverse applications of research, instruction, and recreational use by various campus constituencies. The authors relate a selection process that begins with defining video games as primary source materials, establishing the video game collection as a fundamental feature of the university's research collection. The article goes on to provide numerous excellent insights into the both the practicalities of establishing, circulating, and supporting a video game collection and its attendant hardware in numerous formats, as well as considering the most pressing concerns for the next generation of video game collections, amid the rapid evolution of both gaming and academic gaming studies.

An especially prominent theme in Laskowski and Ward's analysis of the future of video game collections is their outline of game genres that are emerging as important sites of academic study but that have not heretofore been collected widely by academic libraries, namely non-commercial genres such as serious games and works created through "game modding" (pp. 269-270). The authors also note that as academic video game collections mature in order to match the evolution of academic game studies, libraries will have to find ways to attain web-based games rather than focusing almost exclusively on the acquisition of hard copies of games on disk or cartridge. While acquisitions of web-based games raises difficult questions of access, licensing, and preservation, as the world of gaming itself moves increasingly toward a web-based environment, so university collections will need to expand their acquisitions models and polices (pp.270-271). Such observations reflect Laskowski and Ward's practical attention to the immediate future of video game collections, highlighting academic librarians' important roles in

defining how video games truly become "a next generation educational platform that will both deliver academic content, and become a major medium for instructional interactions" (p. 272). Laskowski and Ward's article is the most thoughtful and perspicacious perspective in LIS literature on the current state of academic video game collections, and their analysis deftly pinpoints the essential routes of future growth and expansion for such collections, especially expanding the horizons of both game content and the media and platforms through which games become the object of academic study.

On the whole, the scholarly literature on academic video game collections has reached a point of maturation, establishing the basic groundwork defining the essential features of the field. The work of Laskowski and Ward has built upon that framework to sketch the next steps for the field in practical ways, especially their recognition that one important avenue for future development of video game collections lies in expanding collections to new genres and new platforms. Having completed a thorough collection development review and instituted a long-term development plan at the UNT Media Library, the authors of the present article can provide concrete examples and resources for collection development in this transitional moment for video game collections.

Collection Development in a Transitional Period: Building for Future Needs

If librarians are poised to shape the future of academic gaming studies, it is surely because we are in a special position to chart and provide for the future needs of our faculty, students, and community affiliates. Having created a well-established gaming collection over the past several years, we have embarked on a plan to expand our collection at UNT—in both the scope of our video game content and the range of platforms through which we provide access to

games. Drawing on our experiences, the remainder of this article charts practical directions in collection development for academic libraries seeking to move beyond the basics of video game collections, taking advantage of the contemporary landscape of gaming to build collections fully capable of supporting future directions in game studies. In our efforts to transform our own collection in this way, we have especially pursued ways to expand our collection beyond mainstream, console-based, commercial video games, encompassing in addition the world of serious and artistic games, as well as massively multiplayer online games (MMOs). Recognizing that the world of video game play is increasingly moving to PCs, either through download or browser-based applications, we are intent upon providing access to a range of Internet-based gaming, including both free sources on the Web and subscription services. Allowing access to an expanded range of game content through diverse Internet platforms ensures, we believe, that our collection will remain responsive to the current and future research and instruction needs of our campus community

The Expansion of Game Genres

In building the groundwork of our collection at UNT over the last several years, we focused on attaining mainstream, commercial materials of high popular appeal because such works best suited the curricula and research needs of our campus, which, since 1993, has offered numerous courses on game programming and design, most of which have focused on mainstream gaming. In the last few years, however, our Department of Radio, Television, and Film has begun to offer courses that investigate the broad cultural meanings of video gaming, and as game studies grow and mature on our campus, we expect to encounter significant demand for a broad range of materials in diverse game genres in order to support research and instruction. For this reason, we have chosen to begin expanding our collection to encompass independent, serious,

and artistic games. Independent games span a broad range of productions, from games designed for the commercial market but produced and marketed by individuals or small companies, to games designed and distributed for the sake of craft and artistry and made available for free. Artistic games are works in which the primary intent of the game designer is to explore the video game medium as an art form. Serious games are designed for educational, therapeutic, or instructional purposes, and they can also include games designed as forms of commercial advertising. Serious games relate to diverse academic fields, finding uses in scientific and social research, physical and cognitive therapy, public policy, education, and other fields with significant roots in academia.

Serious Games.

There has most certainly been a marked increase in interest and investment in serious games by universities and educational nonprofit institutions over the last several years, and we expect serious game development to become increasingly important to university libraries in the next decade. Smith (2008) has charted the significant early examples of this movement, and more recently such American institutions as the University of Nevada and Michigan State University have established academic programs specifically in serious gaming, along with other well-funded programs in Canada and the United Kingdom (Cowan, 2009a, 2009b; Dillon, 2007; Rose, 2011; "Serious Game Design, n.d.). Moreover, the importance of serious gaming to the academic community has also been increased because high-profile organizations such as the Bill and Melinda Gates Foundation have made extensive investments in serious gaming for teaching and learning (Cowan, 2010; Curtis, 2011). In addition, NASA has launched a sustained initiative to develop serious games for public outreach and education in science and technology ("Let the Games Begin," 2006; Cowan, 2009c). Other recent examples include a public health initiative

sponsored by Yale University that uses serious gaming to educate youth about HIV and AIDS (Orland, 2011). An excellent resource for serious games of special interest for academic research and curricula is the list maintained by MSU's Serious Game Design program ("Serious Games," n.d.). Such examples illustrate the growing importance of serious gaming both to the study of gaming culture and game development.

Independent and Artistic Games.

There exists a broad spectrum of independent and artistic games that are of interest to academic communities. Since such games represent diverse poles of game development, from strictly commercial independent game studios, to fine artists working with video games as a media, to amateur game development enthusiasts who experiment with old and new game technologies, the world of independent and artistic games is of special interest to students and researchers concerned with gaming developments marginal to commercial mainstream. On our own campus at UNT, our Department of Radio, Television, and Film has recently begun offering a course that examines the "worlds" created within different types of video games, and we expect to see faculty interest in independent and artistic games grow as research and curriculum at our university continues to address the culture and aesthetics of gaming. A distinct advantage for library collections is that many independent and artistic games are offered as freeware. Gamasutra.com and Indiegames.com are both excellent resources for independent and artistic games, and one can build a strong collection of independent and artistic games by tracking them there, especially Indiegames.com, which regularly creates lists of best "independent games," "experimental games," etc.

MMOs.

Because of their immense popularity and social importance, MMOs are an attractive genre for a university gaming collection. MMOs are important to studies of gaming culture because they consist of virtual worlds where players interact globally and even participate in specialized virtual economies. Such games are the subject of academic research in a number of fields, especially as they both interact with and mirror patterns of economic and social behavior in the non-virtual world (Kafai & Fefferman, 2010; Yee, Ducheneaut, Nelson, and Likarish, 2011). As such, we expect MMOs to become an important area of demand for university gaming collections.

The Transition to New Forms: PCs, Handhelds, and Browser-Based Environments

The world of video gaming is moving away from the traditional model of hard-disk or cartridge games played on consoles toward play on PCs and handheld devices ("A Giant Sucking Sound," 2009; Gross, 2010; Jaroslovsky, 2011; Mehta, 2010). In order to maintain a university gaming collection responsive to the emerging needs of the campus community, then, the academic gaming collection must also make the move to PC and handheld platforms. Indeed, expanding gaming collections beyond mainstream commercial materials necessitates restructuring collections to provide access to games on PCs and handhelds. Today, many of the most innovative games, in both commercial and non-commercial genres, are available only for PC or handheld play. Clearly, building a gaming collection based on online access and made available through PC and handheld devices requires a new model of what constitutes a gaming collection in an academic setting. Moreover, building and managing such a collection requires new roles and competencies for university librarians. Transforming the library's video game collection in order to provide access to the online world of gaming, librarians must work out new acquisition models that take advantage of both free materials and paid subscription services.

Moreover, librarians must develop new competencies in curating the wealth of online materials included in the collection, communicating to library constituents the range of collection contents, and facilitating patron access.

Subscription Access, Game Portals, and Free Games.

Creating such new models entails navigating some legal and administrative difficulties since it means entering into subscription and licensing agreements with diverse commercial and non-commercial entities that are not traditional library vendors. Meeting such obstacles necessitates working carefully with library administration to craft acquisitions models that adhere to general library policy. For example, as we begin to build our online collection, the UNT Media Library is currently working to secure the authority to attain subscriptions to a limited number of online gaming purveyors, including Steam.com and Gametap.com. Nevertheless, while moving the university gaming collection online has inherent difficulties, it also offers a huge potential to vastly increase the size of the collection very quickly and at a relatively low cost. For example, by attaining a subscription to Gametap at an annual cost of $120, a university library will instantly add about thirteen hundred titles to its video game collection. Finally, it is important to note that building a collection in this way raises questions about continued access. In this regard, gaming collections will come to resemble the serial subscriptions maintained by the library in other areas of academic research.

Indeed, maintaining PCs to support its gaming collection, a university library can quite feasibly make Internet gaming subscriptions services and portals the primary method of making gaming materials available to its patrons. Acquiring games in this way promises access to large numbers of games in a fashion that is inexpensive compared to the acquisition of individual discs

and cartridges and can quickly add historical depth to the collection by acquiring subscriptions to sites that provide access to a roster of older, "vintage" games.

In addition to subscription access, a number of Internet gaming portals offer purchase of individual games through download, which provides another option for building the gaming collection's PC offerings. Steam is a prominent portal used to distribute and manage game downloads. It offers trial access and free-to-play games, and it also provides a community space for gamers using its services. Gametap is another excellent resource that provides access to large collections of games with a monthly subscription, notable especially for its "classic" offerings, which feature older, retro games running in emulation, i.e., in a mode that approximates the historical experience of playing vintage games. Onlive is a subscription service based on "cloud computing," in which their catalog of about one hundred video games is run entirely on their own servers, making sophisticated gaming available to even low-end computers, an important consideration for an institution wary of investing in specialized computer hardware for its gaming collection.

Managing access to collections based on such subscriptions creates unique challenges and necessitates new roles for gaming librarians. In order to allow our librarians to monitor and manage the use of library gaming subscriptions, the UNT Media Library plans to limit access to Internet gaming collections to in-house use, restricting the use of gaming collection subscriptions to computers and handhelds located in the library. Such a policy will require gaming librarians to maintain an active role in facilitating patron access to individual, password-protected subscription accounts. Moreover, an important consideration for gaming subscriptions is that much like some serial databases, gaming services can add or remove titles as a result of changes in licensing agreements or other market forces. Consequently, gaming librarians must assume a

vigilant curatorial role in order to communicate to patrons the contemporary state of the gaming collection.

Most importantly, licensing itself is a crucial issue for libraries entering into purchase agreements with online gaming concerns, since purchasing subscriptions customarily entails acceding to a long and detailed licensing agreement. It is essential to work out a procedure for vetting and permitting such licensing agreements between the university library and subscription services, a process that potentially involves both the library's legal staff and its information technology division.

Although highly attractive for their far-reaching social significance, MMOs present their own unique challenges to university gaming collections. While a number of important and influential games are available on a limited, free-to-play basis, which promises an excellent way to gain access with little cost, the characteristics of MMO play itself create difficulties with collection management. Role-playing MMOs require the creation of virtual characters that are associated with individual accounts, and each character amasses virtual goods and interacts with other players. Providing access to such games raises the possibility of library staff having to monitor online activities pursued in the guise of characters associated with a library collection MMO account, a barrier which may ultimately make MMO play too difficult to manage in a university gaming collection.

Gaming Labs

We believe that an essential part of building a vibrant gaming collection is making spaces within the library for gaming, integrating the gaming collection into the fabric of academic life in the university library. At the UNT Media Library, we regularly sponsor gaming social events

under a series titled “Game On!,” and we have recently established a gaming station in the library available at all times for console gaming. In order to truly meet the needs of gaming research and curricula, however, we have planned the creation of a gaming lab in our library that will allow students and faculty to create their own games, either from scratch or through game modification (modding). We are particularly interested in acquiring for this section of the gaming lab an Xbox Kinect 360 camera, which can be used for game modification and creation employing software recently released by Microsoft. As such, we have planned for our gaming lab to feature at least four PCs with monitors, processors, and graphics cards sufficient for high-end gaming. At least two stations are slated to have Kinect cameras and the PC drivers that support them. Additional software will be chosen in consultation with faculty. Moreover, we envision making this lab available to all students, without requiring enrollment in any particular class, and indeed, by making such easy-to-use equipment as the Kinect 360 camera central to its function, we expect that the game lab will be fully accessible to all interested students, not only those that are technically sophisticated.

Conclusion: Next Steps in a Continually Changing Field

Video game collections in academic libraries are a relatively new development, and, due to the nature of collection materials, they are in a state of continual—and sometimes rapid—evolution. Building, improving, and providing access to such collections demands nimble responses to changing technologies and campus demands. Moreover, video game collections also make new demands on librarians, who must always be ready to create new acquisitions models in the face of the field’s changing terrain and be willing to refine their own collection management roles in order to fulfill emergent curatorial needs created by changing collections. In the immediate future, such management roles and collection development strategies will

surely be dominated by the imperative to make Internet gaming research available to the campus community, with all of the technical, administrative, and curatorial challenges such an initiative entails.

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