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Asset Reuse of Images From a Repository

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Abstract

Asset Reuse of Images From a Repository

by

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MLS, MA, University of Maryland, 1994

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Dissertation Submitted in Partial Fulfillment

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Abstract

According to Markus's theory of reuse, when digital repositories are deployed to collect and distribute organizational assets, they supposedly help ensure accountability, extend information exchange, and improve productivity. Such repositories require a large investment due to the continuing costs of hardware, software, user licenses, training, and technical support. The problem addressed in this study was the lack of evidence in the literature on whether users in fact reused enough digital assets in repositories to justify the investment. The objective of the study was to investigate the organizational value of repositories to better inform architectural, construction, software and other industries whether repositories are worth the investment. This study was designed to examine asset reuse of medical images at a health information publisher. The research question focused on the amount of asset reuse over time, which was determined from existing repository transaction logs generated over an 8-year period by all users. A longitudinal census data analysis of archival research was performed on the entire dataset of 85,250 transaction logs. The results showed that 42 users downloaded those assets, including 11,059 images, indicating that the repository was used by sufficient users at this publisher of about 80 employees. From those images, 1,443 medical images were reused for new product development, showing a minimal asset reuse rate of 13%. Assistants (42%), writers (20%), and librarians (16%) were the primary users of this repository. Collectively, these results demonstrated the value of repositories in improving organizational productivity—through reuse of existing digital assets such as medical images to avoid unnecessary duplication costs—for social change and economic transformation.

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Chapter 1: Introduction to the Study

Introduction

Organizational memory is fragile and fraught with amnesia. Historically, information tended to be recorded on paper, stored in warehouses, and eventually shredded. Today information is recorded in electronic files that are deleted, wiped out, lost, and sometimes unrecoverable. As a result, workers engage in unproductive repetition of their predecessors' work (Stewart, 2006, p. 14).

The inability of decision support and management information systems to effectively handle and encourage information reuse has led to the creation of knowledge management systems. These systems are designed to create, safeguard, and use files—known as *assets*—in a manner that facilitates delivery to the right people at the right time to enhance creativity, spark innovation, and create value for the organization (Allerton, 2003, p. 36; Avram, 2006, p. 1; English & Baker, 2006, p. 1).

Organizations are awash in information, but until it is used or acted upon it is not "actionable information," or knowledge (Dixon, 2000, p. 2). Recognizing that knowledge is transformed in many ways, here the knowledge being managed is referred to as *explicit knowledge*, or objects to be stored and manipulated (Chen & Chen, 2006, pp. 19, 22; Nissen, 2005, p. 232). The challenge for an organization is to convert its know-how (tacit) into know-that (explicit) knowledge and store it for reuse in order to benefit the organization and gain sustainable competitive advantage (Iftikhar, 2003, p. 55; Markus, 2001).

Once an organization's know-how is converted into know-that (also referred to as *show-how*), the next challenge and topic for this study was whether others reuse what is already known. A form of knowledge management system is the institutional repository, a database that captures and distributes knowledge in the form of individual digital assets, such as the medical images of a health information publisher in this study.

Knowledge reuse is an effort to ensure that existing assets are used in the redeployment of prior assets, saving the time and money that would be required to develop novel assets. The repository provides organizations with a way to capture, digitally reexamine, manipulate, and reuse published assets, whose costs have already been incurred. When the repository is utilized as needed it allows for greater organizational efficiency, prevents unnecessary duplication of assets, and maximizes the return on the original asset investment (Elias & Hassan, 2010, p. 104; McInerney, 2002, p. 14).

The question explored in this study was if an organization proactively managed its assets in a repository, would reuse occur and subsequently would its processes improve (Short, 2004, p. 52). Previous researchers found that when investments were made in repositories, the process improvements realized were based heavily on talented users, not the technology (Dixon, 2007, p. 102; English & Baker, 2006, p. 41).

The purpose of this study was to address the cost of a repository compared to its return on investment, specifically whether its value and performance payoff in the form of asset reuse would offset the cost of creating and maintaining the repository—including the cost associated with customizing the repository, training staff to use the repository,

ingesting and archiving assets, and addressing any issues that may arise along the way. These factors are important because organizations that finance to costly, high-quality assets demand more value from their investment (Horodyski, 2013, p. 393).

The market for database management system software continues to see strong worldwide growth. Gartner, Inc. estimated the worldwide software revenue for data management at $1.9 billion in 2012, a 21% increase from 2011. There is a resurgence of digital asset management in organizations where there is prolific use of text, image, video and audio. By 2020 digital information will grow to about 35 trillion gigabytes, according to the market intelligence firm International Data Corporation, as voice, TV, radio and print move from analog to digital, and organizations will need to store, manage, protect and dispose of this digital content (Gantz & Reinsel, 2010, p. 1). In order to identify new opportunities, make better decisions and gain insight into the business, organizations are being forced to invest in their assets.

I sought to understand the impact of a repository on an organization's processes by measuring the reuse of medical images. The contribution of the study will benefit industries such as architecture, construction and software engineering, where asset reuse is a critical component of effective group performance. Such use can contribute to positive social change by informing the benefits of leveraging asset reuse for replication and innovation to gain sustainable competitive advantage. When digital repositories are deployed to centralize collection and distribution of organizational assets, they can extend information exchange and serve as tools for social and economic transformation.

This chapter contains background on the research literature and theoretical support of Markus's theory of reuse. It outlines the purpose and reuse research questions to determine the level of asset reuse of existing medical images by staff over time. Finally, it defines relevant terms, scope, limitations and significance.

Background

Digital asset management is related to but distinct from other content management tools and disciplines described later in this and in the following chapters. Knowledge management is an overall strategy to index and proactively retrieve information.

Under the umbrella of knowledge management is content management. Content management is a strategy and technology for storing and indexing information from and about analog or digital media, such as a website.

The third level of managing content is media asset management. The tasks involve locating and retrieving specific content objects from analog or digital media, which include audio, video, and images.

The fourth level and focus in this study was digital asset management. Digital asset management is used to locate and retrieve specific digital content objects for possible resale or reuse for another purpose. Digital asset management concerns itself with processing publishing information, with more emphasis on the processing side, and a special focus on metadata management and the transformation and assembly of assets for distribution to multiple mediums, such as print, online, mobile and others (Doering, 2006, p. 34; Parker, 2007).

Of those in the literature who used knowledge management systems, the majority of research on asset reuse was found in the top level for content—knowledge management. Asset reuse in knowledge management systems therefore was the focus of the literature review. The largest number of asset reuse studies were on software development—specifically code reuse and software product lines—where domain-specific assets can be assembled in different ways to produce variations of a given product (Eeles, 2008; Estublier, 2005, p. 316; Gerard et al., 2007; Haefliger et al., 2008; Larsen, 2006).

Mayo Clinic Global Business Solutions (GBS) publishes consumer health information products so digital asset management was the most appropriate area to review. While the need for digital asset management in publishing may be obvious in terms of reuse and brand consistency, other than some industry- and vendor-written case studies reviewed here, there was a dearth of research (Boh, 2008, p. 371; Haynes, 2013, p. 375; Jauhiainen & Honkaranta, 2007, p. 588; McGill & Hobbs, 2003, p. 24; Qian & Bock, 2005, p. 3). This lack of evidence in the literature indicated further research is needed in all fields on the role of digital asset management systems in organizations.

The research needed to be conducted because in 2012, according to Gartner, Inc., U.S. organizations invested more than $1.9 billion annually into systems like the repository studied, and a possible benefit is knowledge or asset reuse. The cost to create and customize the repository plus the ongoing resources needed to train staff, ingest content, fix errors and bugs and upgrade the repository, as well as the costs associated

with licensing and maintenance fees, may exceed the value and performance payoff in the area of reuse.

Problem Statement

The problem was a lack of evidence in the current research literature on the reuse of assets from a repository. The problem of asset reuse was relevant and significant to several disciplines as evidenced by studies including Boh, 2008; Ettlie and Kubark, 2008; Haefliger et al., 2008; Haynes, 2013; Kankanhalli et al., 2011; Scaffidi et al., 2008; and Timbrell et al., 2003. I questioned previous research findings that digital repositories in industry reportedly fail to promote asset reuse because the intended users avoid or hardly use these systems. Investigating the reuse of medical images by the staff of a health information publisher addressed the lack of evidence in the literature.

Purpose of the Study

To address the lack of evidence in the literature on the reuse of assets from a repository, the focus of this study was to determine the level of reuse of existing digital assets by different staff to see if the asset repository in GBS had value. A longitudinal quantitative research design using archival research of existing census data was used to identify the primary users of an external digital asset repository of GBS. The specific intent was to determine the levels of reuse of the repository by different users over time using a longitudinal analysis of archival research to compare users' downloads for assets to existing data 8 years later.

Research Questions

Markus's theory of knowledge reuse (2001) gave rise to the research questions to show the different levels of reuse among different types of users in this study.

1. What was the level of reuse over time by writers on the same product team, the shared work producers who later reuse the knowledge they produced?

2. What was the level of reuse over time by writers on different product teams, the shared work practitioners who reuse each other's knowledge?

3. What was the level of reuse over time by editors, the expertise-seeking novices?

4. What was the level of reuse over time by assistants, the secondary knowledge miners?

5. What was the level of reuse over time by managers, the primary knowledge miners?

6. What was the level of reuse over time by the designers and librarians, the on-demand practitioners who support the knowledge?

7. Which type of users were the primary users of the institutional repository?

Theoretical Framework for the Study

The theoretical foundation identified was Markus's theory of knowledge reuse, a typology based on roles in user groups that provides the basis for explaining and predicting the success of technology in different knowledge reuse situations. The theory originated from published accounts of situations involving the creation and use of written and computer-based records for the purposes of preserving, accessing and reusing

knowledge about what was done, how and why things are or were done, what things mean, and how this knowledge can be applied in other settings (Markus, 2001, p. 58).

Markus defined three major roles in the knowledge reuse process—knowledge producer, knowledge intermediary and knowledge consumer—and proposed four types of reusers in the theory of knowledge reuse: (a) shared work producers (who later reuse the knowledge they produced), (b) shared work practitioners (who reuse each other's knowledge), (c) expertise-seeking novices, and (d) secondary knowledge miners. A more detailed explanation on the theory and extensions to the reuser types is in Chapter 2. To confirm Markus's theory, the existing data were expressed in percentages using a reuse typology framework to create a collective biography of asset reuse.

Nature of the Study

As the intent was to seek what was common and particular about this organization and find what was uncommon in order to confirm and advance the theory of knowledge reuse, the research design used in this study was a longitudinal study of all existing archival research data. This design was an unobtrusive way to examine image reuse by different reuser types as defined by Markus's theoretical support. The method used was longitudinal quantitative analysis using existing archival and sufficiently large census data to compare users' downloads for images in approximately 2-year increments over an 8-year period. All available data were used so the population and sample were the same. A more detailed discussion of the research design is addressed in Chapter 3.

Definitions

Asset management: Asset management products provide some or all of the following: asset discovery; asset management; an asset database/repository; asset portfolio management; and tracking of purchases, leases, contracts and disposal pertaining to information technology (IT) assets, including hardware and software (Gartner.com IT glossary). In this study individual digital medical image files were used to create the published products and their associated data, such as asset name, size, creation date and modified date. Assets relate to other assets and have intrinsic value because they can be sold or used to sell something else. In this study the primary assets studied for reuse are medical illustration and medical image files.

Data mining: The process of discovering meaningful correlations, patterns and trends by sifting through large amounts of data stored in repositories. Data mining employs pattern recognition technologies, as well as statistical and mathematical techniques (Gartner.com IT glossary). Herein data refers to facts and figures without context and interpretation.

Information (knowledge) assets: Information relevant to an enterprise's business function, including captured and tacit knowledge of staff, customers, or business partners; data and information stored in highly structured databases; data and information stored in textual form and in less-structured databases such as messages, e-mail, workflow content, and spreadsheets; information stored in digital and paper documents; purchased content; and public content from the Internet or other sources (Gartner.com IT glossary). These data can be given a market value and packaged in an understandable and useful manner.

IT (information technology): The common term for the entire spectrum of technologies for information processing, including software, hardware, communications technologies, and related services. In general, IT does not include embedded technologies that do not generate data for enterprise use (Gartner.com IT glossary). Technology is an artifact, social relations tool, and management environment.

Knowledge assets: Information relevant to an enterprise's business function, including the captured and tacit knowledge of staff, customers or business partners; data and information stored in structured databases; data and information stored in textual form and unstructured databases (e.g., e-mail and workflow systems); information stored in digital and paper documents; purchased content; and public content from the Internet or other sources (Gartner.com IT glossary). Assets are personalized information with the potential for action that may or may not be new, unique, useful or accurate and are based on data, information, procedures, concepts, ideas, observations, experience, judgments, insights, intuition and interpretation.

Knowledge management: A formal program to manage an organization's intellectual assets (Gartner.com IT glossary). It is a method to share knowledge and information in businesses by integrating information, people, processes, strategies and technology.

Reuse: An application development methodology that catalogs and makes available application components so that they may be incorporated into other applications (Gartner.com IT glossary). In this study reuse involved retrieving existing assets to

answer factual information questions. Reuse can avoid unnecessary duplication and maximize return on the original investment.

User-provisioning: User-provisioning or account-provisioning technology creates, modifies, disables and deletes user accounts and their profiles across IT infrastructure and business applications (Gartner.com IT glossary). The users in this study are groups of individuals who share common observable characteristics. The characteristics defining the users in this study are individuals who worked at the organization and used the repository during its implementation period in 2002, then again in 2004, 2006 and 2008. The groups differ in terms of experience, technical expertise, goals, and ability to influence technology. The following groups of users were analyzed in this study: writers, editors, assistants, designers and librarians.

Value: Value can be defined as something of perceived importance (needs and wants) for which an individual is willing to pay (Gartner.com IT glossary). Value can be developed and exists when these features are present: innovation, quality, strategy, management and organization.

Assumptions

It was assumed the performance outcomes in this study were valid for the particular time period studied and likely could not be duplicated in another time period. Another assumption was that Markus's theory of knowledge reuse might work for this study and not be appropriate for other studies of the repository in the same organization or in a different organization. Cultural, behavioral and sociological nuances determine

how the same data, information, knowledge and technology can yield different performance outcomes in two separate organizations (Malhotra, 2003, p. 68).

Scope and Delimitations

The research problem was to address the lack of evidence in the literature on asset reuse from a repository by studying the level of reuse of existing digital assets by different staff to better understand the repository's value to the organization. The connection between different employee groups and what they downloaded from the repository was unambiguous enough to make a causal inference and satisfy concerns of internal validity.

The boundary of the study was all available data—that is the transaction logs generated by staff—produced by the health information publisher's users who used the repository more than once during the study period. A census on the entire population was possible so the sample and total population were the same.

To address transferability, Markus's theory of knowledge reuse may not be appropriate for other studies of this repository in this organization or in any other organization. Markus's theory may be able to interpret this organizational environment but it is unlikely to bridge the general concepts of knowledge and the diversity of organizational situations.

Limitations

The study investigated a single organization. Limitations of fieldwork, such as lack of control and threats to internal validity, apply. There were no selection, measurement or intervention biases foreseen to influence the study outcome. Staff

attrition and longitudinal effects were two characteristics of the design that had minimal impact on interpreting the results. Staff attrition and growth occurred during the study period. While most openings were filled, usage of the repository by the new user sometimes did not match the usage of the predecessor. While these methodological limitations did not impact the overall outcome or interpretation of the results, they are noted here for replication purposes.

After the first study period ended in January 2003, images used on the Web were added to the repository. Log data were unavailable for the beginning of the second study period in 2004 due to an issue with the vendor license agreement. Log data capture resumed after the issue was resolved, and logs were available for an abbreviated 10-month period starting in June 2004 and ending when the repository was upgraded in April 2005. The 2006 and 2008 study periods began the first workday in January and ran through the last workday in February of the following year. The 2008 period was the last available for longitudinal comparison as during that period Web images were removed from the repository.

Significance

Addressing the lack of evidence in the literature by studying the level of asset reuse by different staff to better understand the repository's value to the organization made several contributions to the discipline and practice of digital asset management. By examining Markus's (2001) theory of knowledge reuse in the context of this research, I responded to a call by Orlikowski and Iacono (2001) to incorporate a theory specifically about technology into a study (p. 121).

Another contribution was I uniquely analyzed all image asset download behavior in the repository during the study period. Agarwal and Lucas (2005) opined when studies of knowledge management reflect the unique challenges of encoding knowledge in electronic repositories or knowledge seeking and providing behaviors in the context of an electronic system, they are viewed as information science scholarship (p. 391).

As for advancing the discipline and practice of digital asset management, this research has implications for organizers of an organization's legacy content and can contribute to understanding technology development, use and change in organizations. While Ouertani et al. (2008) claimed that 80% of information filed is never used (p. 365), 85,250 assets from the repository were downloaded during the study period, which demonstrated that a percentage of assets did have organizational value. Organizations that finance costly, high-quality assets demand more value from their investments (Horodyski, 2013, p. 393).

The implication for positive social change in organizations is reflected in the benefits found to stem from a central repository, such as ensuring uniformity, accuracy, stewardship, semantic consistency and accountability of the organization's official, shared master information assets. The ability to refer to the past, it promotes remembering and understanding, which is necessary for generalization, prediction, human learning and the building of new knowledge (Demian, et al., 2009, p. 194).

Summary

Despite research findings that knowledge management and its subset systems fail to promote reuse because the intended users avoid or hardly use these systems, there is a

resurgence to manage ever-growing digital content in an effort to mitigate the cost of innovation while gaining sustainable competitive advantage. Organizations that invest in costly, high-quality assets demand more value from their investment. Using a theory specifically about technology, I examined an organization's asset downloads to measure the reuse of medical images. Chapter 2 presents the literature search strategy for asset reuse, theoretical foundation of Markus's (2001) theory of knowledge reuse and dearth of published studies on the topic for a literature review. A longitudinal, quantitative research design method using archived log data is described in Chapter 3. Chapter 4 includes the results, and Chapter 5 includes the discussion, conclusions, and recommendations.

Chapter 2: Literature Review

Introduction

The problem, which is relevant and significant to a wide range of industry disciplines, was a lack of evidence in the research literature on the reuse of assets from a digital repository. I questioned previous research findings that digital repositories reportedly fail to promote asset reuse because the intended users avoid or hardly use these systems. Investigating the reuse of medical images by the staff of a health information publisher addressed the lack of evidence in current research literature.

The focus of this study was to determine the level of reuse of existing digital assets by different staff in a health information publisher to see if the asset repository had value. A longitudinal quantitative research design using archival research of existing census data was used to identify who were the primary users of the repository. The intent was to determine the levels of reuse by staff over time using a longitudinal analysis of archival research to measure asset downloads over an 8-year period.

This section covers the literature search strategy, theoretical foundation for this study, and the literature review.

Literature Search Strategy

The online databases searched to establish a basis for this inquiry were Association for Computing Machinery (ACM) digital library, Institute of Electrical and Electronics Engineers (IEEE) Explore, Gartner Research, SciVerse Scopus and Web of Knowledge. *Asset reuse*, *repositories*, and the four levels of managing content, namely *knowledge management*, *content management*, *media asset management* and *digital asset*

management, were the key search terms and combinations thereof used to locate relevant articles and conference proceedings. While the committee encouraged only going back 5 years in the literature, there is little current research and few dissertations and relevant conference proceedings for this specific focus. Therefore, work over the past decade is included to support this study. A possible explanation for the dearth of literature on this topic is that the proprietary nature of corporate culture into which many digital asset management systems are deployed creates barriers to sharing information in academia (Keathley, 2012, p. 6). To partially address the dearth an e-mail notification was set up to alert when an author cited Markus's theory of knowledge reuse (2001) in his or her work. Scanning the references cited for papers in this literature review for related works on the topic also yielded additional papers.

Theoretical Foundation

Albert Einstein (1905) said theory decides what can be observed. In that context, the most appropriate theory to apply to the problem in this study was Markus's (2001) theory of knowledge reuse, a design theory that specifies the integration of technology. Because technology changes how assets can be created and shared, the theory of knowledge reuse should support the human parts of computer-supported work and the implementation and integration of the repository. The theory is based on the organizational learning approach through which organizations grow, change, adapt and improve to remain viable (Lehr & Rice, 2002, p. 1063). It stresses the importance of distributing and organizing knowledge for use by others at later times. The use of the theory can specify the conditions under which successful knowledge or information reuse

is likely to occur. Designing repositories that meet the needs of diverse individuals across organizational subunits, managing the repositories and facilitating their use contribute to successful knowledge reuse and organizational effectiveness (Agarwal & Lucas, 2005; Markus, 1983, p. 443; Markus, 2001, p. 58).

Markus (2001) defined three major roles in the knowledge reuse process: (a) knowledge producers, who document and record explicit knowledge or make tacit knowledge explicit; (b) knowledge intermediaries, who prepare the knowledge for reuse by archiving and sanitizing it and performing a role in dissemination; and (c) knowledge consumers, who are the knowledge reusers who retrieve and apply the knowledge in some fashion.

Markus also proposed four types of reusers in the theory of knowledge reuse: (a) shared work producers (who later reuse the knowledge they produced), (b) shared work practitioners (who reuse each other's knowledge), (c) expertise-seeking novices, and (d) secondary knowledge miners. The typology of knowledge reuse situations is supported in examples from the literature. Timbrell et al.'s (2003) extension to Markus's typology, primary data miners, was added to this study (p. 1) and changed to "primary knowledge miner" to be semantically consistent with Markus's secondary knowledge miner user type. I proposed an additional sixth reuser type, on-demand practitioners.

When organized by the type of reuser, the theory of knowledge reuse provided the basis for explaining and predicting the success of technology in different knowledge reuse situations. Markus's (2001) primary source for the theory was published accounts of situations involving the creation and use of written and computer-based records for the

purposes of preserving, accessing and reusing knowledge about what was done, how and why things are or were done, what things mean, and how this knowledge can be applied in other settings (p. 58). A survey of five application service providers by Timbrell et al. (2003) in a group level analysis was one of the few papers that directly applied to the theory. The majority of published literature citing Markus's theory is conceptual, organizational theory-informed research that follows a historical pattern in this discipline. Representative examples of the later body of diverse research include Gray and Meister (2006), who proposed a theory of knowledge sourcing methods and performance outcomes; Timbrell et al. (2005), who explored a knowledge infrastructure hierarchy model for call-center processes; Tanriverdi (2005) and Shin (2004), who wrote on the economics of technology; Kim, Suh and Lee (2003), who used hypermedia modeling for linking knowledge to medical data warehousing system; and Lehr and Rice (2002), who used an approach to transform individual tacit understanding to shared explicit sense-making.

Because technology changes how assets can be created and shared, the theory of knowledge reuse supported the human parts of computer-supported work and the implementation and integration of the repository. This theory offered the most appropriate perspective to date for explaining and anticipating the actions of users in a publishing business—a perspective not obtainable from the other theoretical lenses—and therefore was the theory used for this study.

Literature Review

To review, the fundamental underlying concept of Markus's (2001) theory of knowledge reuse framework is the knowledge reuser and the purpose of the reuse. The goal was the eventual design of systems to make the systems more efficient for reuse. The individual or group of knowledge reusers can have the role of producer, intermediary, or consumer. Knowledge reuse situations can vary by the level of functional independence in the role individuals or groups have in the organization. The resulting typology was shared work producers, shared work practitioners, expert-seeking novices and secondary knowledge miners.

While more than 370 studies cited Markus's (2001) paper, only 10 papers met the review selection criteria as studies on asset reuse cited Markus's work: Boh, 2008; Ettlie and Kubarek, 2008; Haefliger et al., 2008; Hatami et al., 2003; Haynes, 2013; Marjchrzak et al., 2004; Petter and Viashnavi, 2007; Qian and Bock, 2005; Tan et al., 2007; and Timbrell et al, 2003.

Of these, only one group of authors, Timbrell et al. (2003), applied Markus's (2001) typology most similarly to this study. They applied the typology to an application service provider with five government clients and proposed an extension of the typology to include primary data miner. They concluded that overall the study supported Markus's theory and groups studied showed consistency in their dominant reuse typology. Dominance in reuse typology is also the area I proposed to show with the group at GBS.

Where Timbrell et al.'s (2003) study differed from this study is the use of an interview survey. Instead I used the archival logs of what individual staff downloaded to

understand and measure their reuse. Timbrell et al. proposed to extend their study into a longitudinal case by examining knowledge reuse situations during and after an upgrade. I attempted to fill their research gap by longitudinally examining user behavior at a health information publisher.

Boh's (2008) study was similar to this study in that the author examined the problem of reusing knowledge assets not structured to facilitate reuse, which echoed a theme of Markus (2001). Where Boh's work differed from this study but is similar to Timbrell et al. (2003) was that Boh conducted interviews and an event-driven survey to examine the use of an existing, centralized, 50,000-asset repository in a consulting firm. The number of assets in Boh's repository was similar to the number in the repository in this study. Boh, like Qian and Bock (2005), used Markus (2001) and DeLone and McLean's (1992) information systems success model.

Ettlie and Kubarek (2008) used a Web-based questionnaire of 42 respondents from research and development companies to report the benefits of reuse. Their intent was to show that the extent of design reuse would limit the negative impact on the innovativeness of new offerings. Cost reduction of reuse can be balanced without degrading innovation, which is similar to the Majchrzak et al. (2004) concept of "recombative integration" (p. 187). Both findings of Ettlie and Kubarek and Majchrzak et al. support the notion that incentives, whether financial or reputation based, may not need to be offered in corporate reuse programs to counter the notion that reuse is boring or less satisfying than creating new assets (Haefliger et al., 2008, p. 182).

Haefliger et al. (2008) conducted a component inventory of a core sample of code reuse in open source software, which is similar to analyzing the log files of asset reuse in this study. It differs from the other interview-based studies thus far reviewed. The type of assets in the Haefliger et al. study were text based, while the assets studied here were image based.

Markus (2001) alluded to knowledge reuse as part of organizational memory systems, which was highlighted by Hatami et al. (2003) and that knowledge management systems (i.e., repositories) should be an enabler in the greater context of knowledge sharing. The authors also conducted multiple interviews of the management team of a chemical company, similar to Boh (2008), Ettlie and Kubarek (2008), Qian and Bock (2005), and Timbrell et al. (2003).

Petter and Vaishnavi (2008), like Haefliger et al. (2008), wanted to facilitate reuse for software development, but in the Petter and Vaishnavi study the reuse is tacit-based experience reuse. This study is the only one reviewed in which the authors suggested reusing experience instead of the explicit assets used in this study and the other studies reviewed that cite Markus (2001). Creating a community of experience reuse of postmortem analysis to document lessons learned is challenging. The key problem is getting people to contribute their knowledge, without which there is no relevant content available for reuse. Instead of a formal repository, Petter and Vishnavi utilized wiki technology.

Hirai et al. (2007), although they did not cite Markus, might have a solution for the challenge of getting people to contribute to knowledge repositories, which was posed

by both Petter and Viashnavi (2008) and Markus (2001). Hirai et al. used a project-based knowledge flow model for research and development laboratories and workflow to generate reminder e-mails to the member responsible for the work package until documents were submitted. The system prompted members to hold a meeting to internalize the knowledge assets and share lessons learned through discussion.

Qin and Bock (2005), similar to Boh (2008), Ettlie and Kubarek (2008), and Timbrell et al. (2003), used a survey of 110 users of knowledge repository systems to measure success of the systems. Also like Boh (2008), the authors combined Markus's (2001) knowledge reusability concept with DeLone and McLean's (1992) information systems success model. Qin and Bock too may have benefitted from implementing workflow tools like Hirai et al. (2007) to facilitate knowledge sharing. The asset repository studied, however, lacked the inclusion of this type of knowledge beyond what was captured in metadata of the staff who worked on the published projects. Best practices and lessons learned were not sought.

Tan et al. (2007) incorporated Markus's (2001) work in the area of knowledge capture on how to represent and store knowledge. These authors looked at a system designed for live capture and reuse of product knowledge in construction using semistructured interviews of senior staff. Tan et al. (2007) also employed workflow and e-mail reminders but lacked the experience reuse component found in Hirai et al. (2007). In sum, Boh (2008), Ettlie and Kubarek (2008), Qian and Bock (2005), Tan et al., (2007) and Timbrell et al. (2003) employed a survey method, which differs from this analysis of actual log use data to determine reuse. Haefliger et al., (2008) looked at actual open

source software code reuse, similar to the asset image reuse in this study. Boh's (2008) work had a similar asset repository in size and scope to this study. And Timbrell et al. (2003) applied Markus's (2001) typology most similarly to this work. The knowledge reuse situations varied depending on the roles (e.g., shared work producers), which was most akin to the context of this study for asset reuse.

Knowledge in Innovation

Knowledge management and collaboration are considered prerequisites for enhanced creativity and more innovation (Avram, 2006, p. 1). There are vicious and virtuous circles related to the reuse of knowledge, specifically problems of motivation and reward (Markus, 2001; Sambamurthy & Subramani, 2005a, p. 5). Many business cultures reward—sometimes unconsciously—knowledge creation over knowledge reuse (Davenport, 2005, p. 7). Knowledge creation is likely strategic in nature. In order to benefit the organization it should be well aligned with near-term tasks. Under instances of knowledge depreciation employees are unlikely able to optimize knowledge creation without organizational involvement in matching skills to task complexities (Alavi et al., 2005 p. 191; Chen & Edington, 2005, p. 279).

Edvinsson et al. (2004) defined innovation as (reuse + invention) x exploitation (p. 40) and posited direct cause and effect relations between knowledge reuse and invention. They propose six facets of an "innovation cube": (a) reuse of existing knowledge; (b) invention of new knowledge; (c) exploitation (i.e., turning knowledge into value); (d) stakeholders' contributions (to the innovation life cycle); (e) the enabling

ecology or operating context in which the innovation occurs; and (f) the performance facet, (i.e. the bottom line; p. 48).

Organizations hire employees with the ability to be reflective practitioners who, it stands to reason, continually reuse their own knowledge. Those employees may prefer to create new knowledge to solve problems rather than reuse knowledge created by others and stored in digital repositories. Paradoxically, hiring bright individuals who can generate new knowledge may reduce knowledge reuse from digital repositories and the potential for increasing returns accruing from such reuse. These observations are consistent with research suggesting that those who are helped are viewed as less competent than those who provide help (Sambamurthy & Subramani, 2005a, p. 5).

Knowledge reuse within organizations is typically performed for two objectives: innovation and replication (Majchrzak et al., 2004, p. 174). Knowledge reuse for innovation focuses on adapting new knowledge into an existing project in order to accomplish a task. If an organization engages only in innovation they will collect underdeveloped ideas that are not followed through to completion, and likely will incur costs from the process while not gaining the benefits (March, 1991, p. 77).

Knowledge reuse for replication focuses on knowledge acquisition through which best practices are transferred (replicated) in order to increase productivity. Old ideas can be likened to mirages that appear in the desert—they seem to promise a source of water and cool shelter, but at the end of the day all that is present is desert. The replication strategy for long-term survival is illusory. If organizations support only replication, they

may survive in the short-term but will not be able to sustain survival (Durcikova & Everard, 2004, p. 11).

Knowledge reuse has been conceived by numerous practitioners to boost organizational performance, especially in the areas associated with organizational innovation—such as new product development, innovation diffusion, and technology transfer. Yet the empirical evidence that supports the correlation between innovative performance and knowledge reuse is lacking. Knowledge reuse potentially decreases the intensity of creating new knowledge (Cheung, Chau & Au, 2008, p. 1).

Cheung, Chau, and Au (2008) examined the effect of intranet-based knowledge repository on the level of creative performance of an individual. A controlled experiment was conducted on more than a hundred students to investigate the levels of creativity outcomes on an open-ended business task. The results suggested that while knowledge reuse may help an individual generate more creative ideas (i.e., quantity-wise), its use might inhibit the level of creativity of the individual (i.e., quality-wise). In particular, this inhibiting effect is significantly stronger on an individual with a higher baseline creativity skill than an individual with a lower level of creativity, making a creative person perform in a less creative manner than an otherwise unimaginative person (p. 1).

Organizations need to maintain a proper balance between innovation and replication in order to survive (March, 1991, p. 71). However, innovation and replication compete for the same scarce resources. The people in the organization represent a large part of those resources. To support innovation and replication, individuals in an

organization need to communicate and share what they know (Costa, 1999, p. 252; Durcikova & Everard, 2004, p. 13).

Knowledge Management Systems

Knowledge management systems are a set of strategies and approaches designed to create, safeguard and use assets to deliver them to the right people at the right time and, in turn, create value for the organization (English & Baker, 2006, p. 1). Although there are many different definitions of knowledge management (Alavi & Leidner 1999; King 1999), what they have in common is their focus on knowledge, organizations, people, processes and technology (Durcikova & Everard, 2004, p. 13; Desouza & Awazu, 2005, p. 302).

Many organizations have comprehensive knowledge management systems while others use knowledge management systems to support critical business process. Knowledge management supports a workplace through organizational values, culture, processes, and tools that support the organization to create, capture, organize, access, and use the organization's knowledge that enables people to become more productive, collaborative, and innovative (Harris, 2006, p. 2). Without knowledge management organizations may have substandard performance, intellectual rework, and lack of available knowledge management resources (Swartz, 2003, pp. 54-55).

What organizations manage under the banner of knowledge management is actually a mix of knowledge, information and unrefined data—whatever people find useful in a digital asset repository. When knowledge is considered a public good owned and maintained by a community, knowledge exchange is motivated by moral obligation

and organizational interest instead of narrow self-interest (Jarvenpaa & Staples, 2001, p. 151; Wasko & Faraj, 2000, p. 155). Work in organizations increasingly is performed not by isolated workers but by cross-organizational project groups. Sustainable knowledge creation and business innovation depend in part on encouraging collaboration and cooperation using knowledge management systems (Lindgren, et al., 2003, p. 28). However, some management practices, human resources policies and reward programs subtly support knowledge protection, insular communities, and short-term return-on-investment. The challenge for knowledge management efforts lies in changing organizational culture and people's work habits (McDermott, 2001, p. 104).

Knowledge Management Repositories

The best known and most prevalent type of application of a knowledge management system is the knowledge repository. The escalation in the volume of available information has exacerbated problems of locating, selecting and evaluating quality and currency of retrieved information, and a repository can automate the process.

Knowledge management repositories aim to provide an environment in which users may reuse knowledge to benefit the organization, colleagues and customers. Instead of helping users, however, sometimes centralized repositories, particularly those that are not properly maintained, overwhelm users by simply only increasing information overload (Desouza & Awazu, 2005, p. 765; Maneewatthana, Wills and Hall, 2005, p. 214). The software in knowledge repositories fundamentally reconfigures the manner in which the knowledge is structured, stored, retrieved and reused in the organization. It introduces a new standardizing language that generates a push toward greater

standardization and reduces the technological heterogeneity that was before accommodated by semiformal interaction patterns (D'Adderio, 2002, p. 724).

The accumulation of knowledge within a number of disciplines, such as design (Wahid, 2006), software engineering and semantic web programming (Maneewatthana, Wills and Hall, 2005), engineering (Baxter, et al., 2007), architecture, and construction (Tan, et al., 2007; Demian & Fruchter, 2006), environmental policy (Michaels, 2006), and e-learning and distributed teaching (Newman, 2004; Tsalapatas, Stav & Kalantzis, 2004), is vital to their continued existence as a discipline. If transferred and reused, knowledge has the potential to aid knowledge workers with their own work. Reuse is not only important because it can decrease time and cost, but because it can also allow workers to consider previous work and create with sound reasoning. Lack of a complete reuse and representation process can hinder advancements (Wahid, 2006, p. 354).

Reuse from a repository that requires a human expert to provide input on what to reuse may be counterproductive. Demian and Fruchter (2006) posit that knowledge reuse through social networks was preferred by novice designers while experienced designers will manage the tradeoff between productivity (using the repository) and creativity for the new project. Not only do designers need to find a reusable item, once the item is found the project context needs to be considered in order to understand the asset and assess its reusability (pp. 190-194). Two papers by the same first author reported on the problem of motivating technical support employees to first use knowledge held in a repository and consult with a colleague to draw on their "knowledge sourcing behavior" (expertise,

experience, advice and opinions) only after no suitable answer could be found in the repository (Gray & Durcikova, 2005; Gray & Meister, 2006).

Other knowledge management applications include best-practice and lessons-learned systems, expert networks and communities of practice. The best-practices and lessons-learned systems store for later retrieval practices and lessons from one situation that could be adapted in another. Expert networks often identify accessible individuals knowledgeable on a topic. Knowledge embedded in a computer program, as exemplified by expert networks, can be used to automate complex processes with the result of higher effectiveness, higher efficiency, and lowered costs. Communities of practice enable members who are in dispersed geographic settings to share their common interests through a network (King, Marks & McCoy, 2002, p. 93).

Taxonomy of Reuse

In the taxonomy set forth by Despres and Chauvel (1999), the knowledge management activities are: scan/map, acquire/create, package/store, apply/share/transfer, and reuse/innovate/transform (p. 110). There are two main strategies for knowledge management: whether they entail reuse (exploitation) or creation (exploration). But the two are not orthogonal, because new knowledge builds on existing knowledge or uses existing knowledge as a point of departure (Schumpeter, as cited in Merali & Davies, 2001, p. 92).

The two main means to achieving these knowledge management strategies are codification (reuse) and personalization (creation). The codification strategy is used for coding and storing knowledge. It relies on the economics of reuse by assuming that

knowledge may be extracted and codified and uses a document-to-person approach where knowledge assets are stored and indexed in databases for retrieval. Once an asset has been developed and paid for, it can be used many times over at very low cost provided it does not have to be substantially modified each time it is used (Hansen, Nohria & Tierney, 1999, p. 106). The advantages of using stored knowledge are a potential resource pool from which to draw, information redundancy in a positive sense, consistency of message and time savings to the organization. Potential disadvantages of reuse are the reliability of the assets and information overload. The personalization strategy recognizes tacit knowledge and assumes that knowledge is mainly shared through direct interpersonal communication (Hahn & Subramani, 2002, p. 303). Hansen, Nohria & Tierney (1999) recommend designing knowledge management systems that split both strategies 80-20 with the second strategy supporting the first (p. 110).

According to Markus (2001), knowledge reuse entails three main activities: locating the documents or records that may contain relevant explicit knowledge, selecting relevant or significant items from the set retrieved through search, and applying the knowledge in a particular context. Reusing information through reference and aggregation is common in the real world (Oren et al., 2006).

The process of reuse plays a pivotal role in leveraging knowledge assets to sustain competitive advantage in organizations (McGrath & Parkes, 2004, p. 382). Knowledge reuse problems are linked to ensuring that preexisting knowledge is used to solve problems when it is better than developing new knowledge (Sambamurthy & Subramani, 2005b, p. 193). There is an increased interest in attempting to determine what motivates

individuals to reuse existing knowledge. The assumption was that if knowledge is available, individuals would use and reuse it. This has proven less than accurate, and it is becoming increasingly evident that reuse is not taking place to the extent that was originally anticipated (McGrath & Parkes, 2004, p. 382).

Effective reuse of knowledge assets requires investment in making knowledge reusable. Metadata when used to tag specific information can facilitate its ability to be found when needed. Organizations need to provide the taxonomies, training, role models and encouragement to accomplish reuse. Metadata and taxonomies, which are critical to asset use and reuse, can be used to map affinities between structured and unstructured data sources and to build ontologies that are more relationship-based (Horodyski, 2013, p. 74).

The goal is to reuse knowledge more effectively. While organizations can not force employees to reuse knowledge, organizations can make it much easier for employees to reuse existing knowledge than to create new knowledge—if that is the desired goal. Success with reuse requires leadership, asset viability and asset control (Davenport, 2005, pp. 71-3).

Reuse in Knowledge Management

Sumner and Dawe (2001) said asset reuse involved three intertwined cognitive activities: location, comprehension and modification (p. 417). Users must be able to find assets that respond to needs, understand whether they are relevant, and in a format that is modifiable (Roda et al., 2005, p. 13). For example staff who reused the knowledge asset system at Boh's (2008) technical consulting firm had high domain familiarity and longer

time with the organization in order to reuse assets to improve their new project. In contrast Dixon's (2007) accounting firm study found that staff who had been with the organization the least amount of time and had weaker social network ties were the routine users of the knowledge management system, while users who had been employed by the firm longer and relied on their social networks instead of the system to do their work.

In the software industry there is an effort to write reusable software code for large scale reuse across multiple product lines, or develop the components in a generic fashion to allow their systematic reuse in various contexts in order to improve future efficiency and quality while reducing time to market (Altintas & Cetin, 2008; Rothenberger, et al., 2003, p. 825). Creating solutions that could apply to similar product lines, such as Altinas and Cetin's software factory automation for the banking industry contrasts to organizations like GBS, who focus on creating their assets for their own present, non-reuse setting.

Other diverse fields with research on asset reuse include academic libraries (Estublier, 2005; Roda et al., 2005), application service provider (Timbrell et al., 2003), automotive industry (Haynes, 2013), banking (Altintas & Cetin, 2008), chemistry (Hatami et al., 2003), construction engineering (Tan et al., 2007), government pensions (Jauhiainen & Honkaranta, 2007), research and development laboratories (Ettlie & Kubarek, 2008), robotic spacecraft technology (Majchrzak et al., 2004), and technical consulting (Boh, 2008). In addition to asset reuse, some knowledge repositories circulate organizational knowledge by facilitating experience reuse, that is, the expertise embodied in people (Grandison & Thomas, 2008; Hirai et al., 2007; Petter & Vaishnavi, 2007).

While the software industry may be creating generic, reusable assets, similar to Boh's (2008) analysis of the reuse of assets from a technical consulting firm's repository that was not structured or created for reuse, this work analyzed how workers reused medical images from prior projects in their new projects. Reusing a medical image from a prior project may require considerable rework by the reuser and designer, potentially including changing the labels, background, caption, layers, or even reworking the medical image by placing more emphasis on a specific portion of the anatomy. The effort is often seen as worthwhile, however, because it is less costly than creating a new illustration, which requires consultation with a medical illustrator—a specialized type of artist who can be difficult to locate and secure, who requires special training and certification, and who charges a high hourly rate.

It is important to emphasize that not all studies use a knowledge management system. Some use XML to code the documents for reuse, opting for either XML, a Web page detailing the assets available for reuse without making them directly available, or building an asset repository-like product from scratch. Though the concept has been around for some time (Guerrieri, 1998), Jauhiainen & Honkaranta (2007) explain that XML support became available in common office software like Microsoft Office and Open Document Format, and provides the technical means for coding metadata and facilitating future reuse (p. 588). Gerard et al. (2007) developed a software reuse information portal online reusing existing software assets. However, unlike an asset repository they did not design the infrastructure to create a repository/catalog for their reusable assets, only that they exist outside the portal (p. 25).

Gerard et al.'s (2007) approach differed from Roda et al. (2005) who had IT managers build an asset-like repository portal online to scan their art history slide collection into a prototype. Like Mayo's (2007) images from a lenses manufacturer, Roda et al.'s collection of art history slides was limited to simply images with metadata. A niche solution, as I employed in this study, while perhaps initially seeming like more of an investment than they wanted to justify as the cost of doing business, may have addressed some of the high staff turnover issues cited by Roda et al. and their subsequent admission of a future need to employ off-the-shelf software to check for duplicate assets, a feature of an out-of-the-box asset repository. Any repository can handle media objects purely as files, but digital asset management and other knowledge management system functions can make it easier to see inside those objects and to interact with them (CMS Watch, 2009).

The reluctance to build a knowledge management system is understandable, given the millions of dollars companies have invested in developing systems that were considered failures, meaning they were hardly used or avoided by the very people who were intended to use them (Grant & Qureshi, 2006; Markus & Keil, 1994). After reviewing 28 documented cases, Grant & Qureshi concluded that the types of knowledge incorporated into some knowledge management systems might have been inappropriate. System failures were associated with poor project definition, an over focus on technology without accounting for user needs, and a misuse of Nonaka's (1991) popular assumption that tacit (know-how) knowledge easily can be converted into explicit (show-how) knowledge.

Reuse in Digital Asset Management

Digital asset management is related to, but distinct from, other content management tools and disciplines, including knowledge management, content management and media asset management. There are four levels. The top level for managing content is knowledge management. Knowledge management is an overall strategy to index and retrieve information proactively from any medium. Knowledge management differs from data mining, which is a reactive strategy and technology for retroactively locating, retrieving, and processing information from an organization's records or digital storage system. Data mining is largely concerned with processing information.

Under the umbrella of knowledge management is content management. Content management is a strategy and technology for storing and indexing information from and about analog or digital media. An example is Web content management, which primarily involves publishing information.

The third level of managing content is media asset management. Media asset management is the technologies used to locate and retrieve specific content objects from analog or digital media.

The fourth level and focus of this study is digital asset management. Digital asset management is the technologies used to locate and retrieve specific digital content objects for possible resale or reuse. Digital asset management also includes publishing information, with more emphasis on the processing side, and a special focus on metadata

management and the transformation and assembly of assets for distribution to multiple mediums, such as print, Web and mobile (Parker, 2007; Doering, 2006, p. 34).

In addition to the necessary tools and technologies for digital asset management, a structured framework—such as a maturity model approach of the current state and future desired state—can be used by organizations to identify aspects that are important for successful implementation. The enterprise content management maturity model, an open source model, provides a framework for continuing improvement based on maturity levels of the organization. The model defines five levels—unmanaged, incipient, formative, operational and proactive. In the competency of reuse these levels corresponded to: (a) no reuse, (b) inconsistent, unplanned or unsupported reuse, (c) development of a reuse strategy and planned reuse of specific assets, (d) execution of a reuse strategy access all assets, and (e) discovery of new uses of assets beyond original intention (Durga, 2012, p. 189).

Vendors of software for digital asset management have a strong presence in printing and publishing. Many started out in prepress space before Google existed and address printing and publishing requirements for customers (Gartner, 2008). Simon and Shuster, a consumer publisher like GBS, collected files in its asset repository at the end of the production process, that is, in their final, approved and published format (VISTA, 2006). Similarly GBS designers did not store files from the stages of the production progress, preferring during the study period only to archive final files once they were published or printed and any printer corrections were incorporated.

The Digital Asset Repository and Retrieval System (DART) for John Wiley and Sons, a book and journal publisher, was used as a tool to give staff a clearer idea of the scope of Wiley's products, what was previously published before and where publishing gaps may reside, which is useful for future planning and expansion into new markets (VISTA, 2006). Similar to Wiley, GBS used its asset repository to transfer published files to foreign publishers for translation.

An ophthalmic lenses manufacturer also used an asset repository for its corporate images (Mayo, 2007). While this paper was published in the literature, the author was the president of the asset repository solution used by the lenses manufacturer. After implementing an asset repository for the manufacture's images, company marketers could search, track, share and manage licenses for thousands of visual assets it had created or purchased. As a result, staff eliminated unintentional use of duplicate images for multiple marketing campaigns. No details on asset reuse were provided, only that the platform was a "success" (Mayo, 2007, p. 183). While asset reuse of medical images is the primary focus of this study, the lenses manufacturer asset repository was built specifically for reuse.

In contrast to Mayo's (2007) lenses manufacturer asset repository, the asset repository studied here captured all artifacts associated with a final published product—including fonts, text files, shadows, sidebar boxes and stock images—as well as its own proprietary medical illustration images (Rothenberger et al., 2003). Unless the finished product will be reprinted with no changes, which is rare given the high volatility of health information, or translated and reprinted by a foreign publisher, realistically only a small

subset—the proprietary medical illustration and medical images from this asset repository—can be reused. The assets in this asset repository were not created for reuse, and the focus here was to examine how individuals chose assets from a prior project to improve their new project (Boh, 2008, p. 365).

Haynes (2013) measured the savings of asset reuse of its digital media that supported the global market community at Chrysler, an automotive manufacturer. A month-long survey of end users was conducted to determine the percentages of assets used in media product categories. Using a census design, Haynes estimated the cost savings for the reuse of 4,000 assets that month at more than $700,000 (p. 382). Similar to Haynes, this study used a census to determine asset reuse. In contrast, no staff survey was conducted. Instead the actual log data files generated by staff were used to determine the assets downloaded from the repository over four one-year time periods in eight years.

A synthesis of the studies related to the research questions is presented in Table 1.

Table 1

Review of Included Studies on Reuse in Knowledge and Asset Management

	Setting	Design	Method	Results
Boh (2008)	IT consulting firm (25 people)	Field study interviews; event-driven survey	Coded interviews, quantitative analysis and partial least squares structural equation technique	Users who sought assistance from asset authors benefited the most from asset reuse
Ettlie and Kubarek (2008)	Benchmarking web site for design reuse (43 people)	Web-based questionnaire	Ordinary least squares regression analysis	Extent of design reuse limits the negative impact on innovativeness in design projects
Haefliger et al. (2008)	Open source software code (110 people; 6 open source projects)	38,245 accredited lines of code	Automated filtering tool	55 reused components comprising 2,975 reuse incidents; Reuse is a strategy to mitigate the cost of innovation
Haynes (2013)	Automotive manufacturer (4,000 assets exported in 1 month)	Survey of end users	Asset census and cost avoidance values matrix	Average of $176 savings per asset for every asset delivered

(continues)

	Setting	Design	Method	Results
Kankanhalli et al. (2011)	Multi-national bank (102 bank employees)	Field survey	Partial least squares structural equation technique	Supported hypotheses that extrinsic reward, perceived capability, intrinsic motivation and performance benefits were positively related to knowledge reuse
Scaffidi et al. (2008)	End-user programmer code (937 scripts)	Repository logs	One-tailed z-test of proportions	Created a model that can predict whether a web script will be reused by the script's author or other end-user programmer
Timbrell et al. (2003)	Enterprise system service organization for 5 government agencies (28 people)	Case study using prepared case protocol and semi-structured interviews	Determined from the transcripts the dominant knowledge re-use situation experienced by each employee	Employee workgroups were consistent in the dominant reuse situation experienced based on Markus's reuse typology

Summary

Barriers may exist to sharing the successes and failures in asset reuse due to the proprietary nature of corporate culture into which many digital asset management systems are deployed. The majority of published literature citing Markus's theory of knowledge reuse (2001) is conceptual, organizational theory-informed research that follows a pattern in this field. Other studies on repositories used interviews and questionnaires to derive their data. Only Timbrell et al. (2003) applied Markus's typology similarly to the present study. Timbrell et al. also proposed to extend their study into a longitudinal case, which partly may be answered with the present study that examined user behavior longitudinally. The present study addressed a lack of evidence in the information systems and information science literature on reusing assets from an asset repository using archival data by investigating the reuse of medical images by users employed by a health information publisher. A longitudinal, quantitative research design method using archived log data is described in Chapter 3.

Chapter 3: Research Method

Introduction

In order to address the lack of evidence in the current research literature on the reuse of assets from a repository, the focus of this study was to determine the level of reuse of existing digital assets by different staff to see if the asset repository had value. Archival research of existing census data were used to identify the primary users of an external digital asset repository of a health information publisher. The specific intent was to determine the levels of reuse of the repository by different users over time using a longitudinal analysis of archival research to compare users' downloads for assets to existing data 8 years later.

This chapter contains the setting, research design and rationale background, and the role of the researcher in this study. It outlines the methodology for a study using archival data and a data analysis plan. Finally, it reviews the threats to validity, issues of trustworthiness, and ethical procedures and finishes with a summary.

Research Setting

GBS was established in 1986 to convert medical knowledge into consumer health information products and services—including books, newsletters, booklets and websites—that are consistent with the company's brand identity and generate revenue to support its mission of medical education and research. During the study period from 2002-2009 there were about 80 full-time staff.

Prior to 2002 GBS had a closed asset repository primarily accessed by the individual who maintained it. The repository was not scalable for future growth and staff

members could not directly access, browse or search previously published text and images in order to reuse them. Staff did not have a way to electronically reexamine, manipulate and reuse published assets, whose costs had already been incurred, to allow for greater efficiency, avoid unnecessary duplication and maximize return on the original investment. In order for the assets to be shared, the repository needed to be directly accessible by individual users (McInerney, 2002, p. 14).

In 1999 the role of maintaining the former repository and downloading assets to staff were divided among three staff in two separate work areas. In June 2000 the role became the responsibility of the library manager and one librarian; the former researched this study. In an effort to create an asset repository that was directly accessible to individual staff, the then nearly 25,000 digital assets from the publisher's past and current products were exported from the old repository, renamed for cross platform compatibility, and imported into a newly reformatted digital asset repository.

The reformatted asset repository was introduced to staff in a series of meetings and training sessions in January 2002. Staff use was by self-selection (Markus, 1983, p. 440). Librarians continued to organize, preserve, manage and protect the assets, creating a valuable link between assets and potential reuse from the repository. By 2008 more than 50,000 published assets were available to staff. In this longitudinal study of archived existing data, I analyzed and measured the different types and job roles of the key staff (writers, editors, managers, designers, assistants and librarians) who used the open system from 2002 approximately every two years through 2009, examined and measured

individual and group reuse of assets from the repository, and determined whether their reuse confirmed Markus's (2001) theory of knowledge reuse.

Research Design and Rationale

As described in the first chapter, the research questions, which are restated in this section, arose from Markus's (2001) theory of knowledge reuse and showed the different levels of reuse among different types of users in this study:

1. What was the level of reuse over time by writers on the same product team, the shared work producers who later reuse the knowledge they produced?

2. What was the level of reuse over time by writers on different product teams, the shared work practitioners who reuse each other's knowledge?

3. What was the level of reuse over time by editors, the expertise-seeking novices?

4. What was the level of reuse over time by assistants, the secondary knowledge miners?

5. What was the level of reuse over time by managers, the primary knowledge miners?

6. What was the level of reuse over time by the designers and librarians, the on-demand practitioners who support the knowledge?

7. Which type of users were the primary users of the institutional repository?

A longitudinal, quantitative research design using archival research of existing census data were used to compare users' downloads of images in 2-year increments over an 8-year period. The independent variable was the user types determined by employee

job title, and the dependent variable is the asset downloads during the study periods. I examined the descriptive trends of this topic in a certain period of time. In other words, I examined different groups of people at different points in time from the same population using secondary data.

The objective was to use deductive logic to test Markus's existing theoretical concepts and relationships. Using Markus's theory to phrase propositions that were logical conclusions or predictions derived from the theory, the data collected pertained to the propositions. The propositions were tested by comparing findings from the observed reality of collected data with the expected outcome (theoretical propositions). Then Markus's theory could be verified or confirmed. If the theory could be confirmed, there would be greater confidence that the theory might be a reasonable reflection of social reality. This strategy was able to confirm or disconfirm Markus's existing theory and therefore was appropriate for this study.

While a questionnaire, survey, checklist, interviews, observations, focus groups or a case study could have been used as the research approach in this study, these methods would have relied too heavily on the memory of staff over a long period of time. Previous studies used subjective constructs to measure perceived use and perceived ease-of-use. However, self-reports represent individual interpretations of the experience, not accurate descriptions of the experience itself. In the technology acceptance model, Davis (1989) agreed that people's subjective appraisal of performance and effort did not necessarily reflect objective reality. Because there was empirical support for causal links between intention and behavior (Venkatesh & Morris, as cited in Hong, Thong, Wong & Tam,

2001, p. 118), actual usage behavior in the form of user downloads could be incorporated into the research in this study without asking staff to recall their intentions on a survey or questionnaire.

Archival log data were chosen due to the tangible evidence that can be exploited to deduce the nature of these activities. Tasks carried out on the database can be captured in the form of web server log files. Because there is empirical support for causal links between intention and behavior, I analyzed actual usage behavior into the research without asking users their intentions through a survey or questionnaire (Taylor & Todd, 1995; Venkatesh & Davis, 2000; Venkatesh & Morris, as cited in Hong, Thong, Wong & Tam, 2001, p. 118). By exploiting the medical images downloaded in an unobtrusive manner, actual usage behavior of the repository could be aggregated, reveal otherwise invisible patterns, and turned into an organizational benefit (Stenmark, 2002).

Role of the Researcher

As this research was done with the quantitative method, my role was as an outside observer collecting the data. In addition, medical images that I downloaded from the repository are represented by a librarian in the final data set (see Table 8 and Appendix F. The asset repository was a part of my job responsibilities; all fieldwork was conducted overtly in full view of the organization. Researcher biases and power relationships were not applicable to this study of archival data. The implications of doing a study in my work environment were addressed in the letter of cooperation from the organization.

Methodology

Participation Selection Logic

The data population used was all available data (transaction logs) produced by relevant users within GBS—the writers, editors, managers, assistants, designers and librarians. The GBS unit during each study period, not counting staff attrition, had approximately 15 writers, 8 editors, 9 managers, 9 assistants, 6 designers and 4 librarians. The total population of data was used. The sample—a census—and the population were the same. The population here was defined as those who reuse data.

All staff had the opportunity to reuse assets, but not all did so. Since the selected population was all those who downloaded medical images on more than one login session during the entire study period, the sample—a census—and the population were the same.

Data Collection Procedures

The newly reformatted and open asset repository was introduced to staff in January 2002. I obtained the transaction logs of the intranet repository from January 2, 2002-January 13, 2003; June 3, 2004-December 20, 2004; January 1, 2005-April 7, 2005; January 3, 2006-February 22, 2007; and January 2, 2008-February 27, 2009.

Staff accessed assets by logging in to the intranet repository directly from their work area desktop at the organization. Transaction logging functionality was included in the digital asset repository software. Log files contained information about staff activities—the local area network identification (username) of the staff member, date including start and end times of the session, assets downloaded, and the folder location of the assets in the repository (except the 2002 period when it was not available).

The data obtained were the transaction logs of asset downloads by staff. According to the logs there were approximately 85,250 downloads during the study period. Only image assets identified with an extension of eps, gif, jpg and tif—a total of 11,059—were included in the study. Specifically, out of 13,877 asset downloads from January 2, 2002-January 13, 2003, 3,102 images were examined; out of 14,375 asset downloads from June 3, 2004-December 20, 2004 and January 1, 2005-April 7, 2005, 2,399 images were examined; out of 29,906 asset downloads from January 3, 2006-February 22, 2007, 3,994 images were examined; and out of 27,092 assets from January 2, 2008-February 27, 2009, 4,566 images were examined.

Products like books and newsletters have multiple image files—both medical and non-medical. In contrast, condition topic articles on the Web often only have one or two medical images. To equally represent all products, related medical images downloaded from a single product folder in one login session were represented by one medical image. A login session was the period of activity between a user logging in and logging out of the repository.

Data Analysis Plan

For this research it was possible and practical to observe every staff member in the population who self-selected to use the repository. Archival log files were used for a longitudinal census data analysis to examine staff reuse of medical images over an 8-year period. Most of the medical image reuse was expected to be by writers.

After Institutional Review Board approval was received (approval #01-08-13-0089018), the plan was to remove assets that were not images from each study period's

log file, sort the remaining image files by user and date and time, analyze the remaining assets, and select a single medical image asset from each product in order to equally represent the different levels of reuse among the different types of users in this study. By selecting only one medical image per login session, the analysis may not be universally applicable (An et al., 2003).

Ideally a subset of medical images would have been filtered from all 11,059 images. However, the file naming convention did not require that a medical image have a medical word in its filename. For example, medical images from CD-ROMS were named AH followed by numbers and letters. Because I could not know how many of the 11,059 images were medical images, for purposes of the study I overestimated and assumed all 11,059 images were medical images. In contrast, to equally represent all products, only one medical image from a single product folder per login session was selected for inclusion in the analysis. This selection largely underestimated the number of identifiable downloaded medical images. The total number of medical images selected from all products was 1,443. Therefore the minimum asset reuse of medical images in this study was the total images (11,059) divided by the selected medical images (1,443), or 13%.

A pie chart was used to show the distribution of reuse download sessions among the staff based on job title in order to address the research questions and applicability of Markus's (2001) theory of knowledge reuse. The pie chart systemically represented the numerical portion and was an appropriate method for exploratory analysis of census data (Lax, et al., 2008).

Next the different levels of reuse among different types of users from Markus (2001) and Timbrell et al. (2003) were synthesized from the logs as empirical results that emerged from an iterative and interpretative analysis of the census-collected data.

Threats to Validity

Regarding validity, because a researcher cannot measure reality without affecting what he or she is trying to measure, the best a researcher can do is build constructs useful in the understanding of the reality seen and learn whether others agree that the constructs are useful and reasonable. There are rare instances when a researcher can collect data from the entire population in the universe of interest, but this study is an instance. By using all available data from the user population, rather than a sample, my conclusions should be plausible, dependable and credible.

A common concern for researchers is to justify the knowledge claims made. In this study the reliability cannot be determined because the data are already in existence. However, by demonstrating interpretive awareness and acknowledging the subjectivity brought to the research, the research should be reliable.

Issues of Trustworthiness

To address ethical considerations, the asset repository was a part of my job responsibilities of and all fieldwork was conducted overtly in full view of the organization community. The existing data were not available to anyone other than the principal investigator. The records of existing data were stripped of identifiers. The information was recorded in a manner that does not allow staff identification either directly or through identifiers linked to the subjects. Data de-identification reconciled the

need to use the data for research purposes and the need for individual privacy (Bayardo, 2005, p. 217).

Staff members were assigned to Markus's types as outlined by the theory being tested and then re-identified by their job role and a number. I will retain the original data at home for at least five years after the dissertation is approved. The principal investigator obtained the logs from the technology system administrator who managed the repository.

Ethical Procedures

An organizational letter of cooperation was obtained to gain access to the archival data used in this study. The archival data are confidential. Although originally identifiable by a local area network identification, the data were de-identified for purposes of this study after it was determined which job title group and primary product assignment the staff member had—writers, editors, assistants, designers and librarians—and for the writers and editors, whether their primary product assignment was Web; books; or Newsletter 1, Newsletter 2, or Newsletter 3. The de-identified writers, editors, assistants, designers and librarians were placed into the theoretical Markus groups of shared work producers, shared work practitioners, expertise-seeking novices, secondary knowledge miners, primary knowledge miners and on-demand practitioners, as described earlier in the data analysis plan.

Summary

I used all existing census data from archival log files. Most medical image reuse was expected to be by the writers, who are the shared work producers in Markus's theory. A pie chart based on data from the assets downloaded showed the distribution and staff

reuse of medical images. Records of existing data were stripped of personal identifiers after they were categorized into user groups based on job title and primary product assignment. De-identification reconciled the need to use the data for research purposes and the need for individual privacy. The minimum asset reuse of medical images in this study was the total images (11,059) divided by the selected medical images (1,443) or 13%. Chapter 4 includes the results.

Chapter 4: Results

Introduction

The purpose of this study was to address a lack of evidence in the information systems and information science literature on reusing assets from digital repositories by investigating the reuse of medical images by staff at a health information publisher. This chapter includes the research questions, the results to those questions, and a summary of the results of the investigation.

Census Results

Markus's theory of knowledge reuse (2001) gave rise to the research questions to show the different levels of reuse among different types of users in this study:

1. What was the level of reuse over time by writers on the same product team, the shared work producers who later reuse the knowledge they produced?

Thirteen writers reused 242 medical images that were created by members of the same product team to which they were assigned (see Appendix B). Out of 1,443 selected assets reused, the percentage was 17% (see Table 2). The highest percentage (81%) of asset reuse by writers on the same product occurred in 2004-2005 (see Figure 1). Ten of the 13 writers worked on the Web. For most years studied, the Web product made little profit and writers were encouraged by management to reuse medical images to lower production costs.

Table 2

Asset Reuse by Writers on the Same Product: 2002 to 2009

	2002-2003	2004-2005	2006-2007	2008-2009
Writer 1		2		
Writer 2		31		
Writer 3		3	1	
Writer 4		14		
Writer 5			4	
Writer 6		3	6	
Writer 7		82		
Writer 8		4		
Writer 9		36	18	
Writer 10		1	2	
Writer 11		6		
Writer 12		13	8	5
Writer 13			2	
Subtotal	0	195	42	5
Total				242

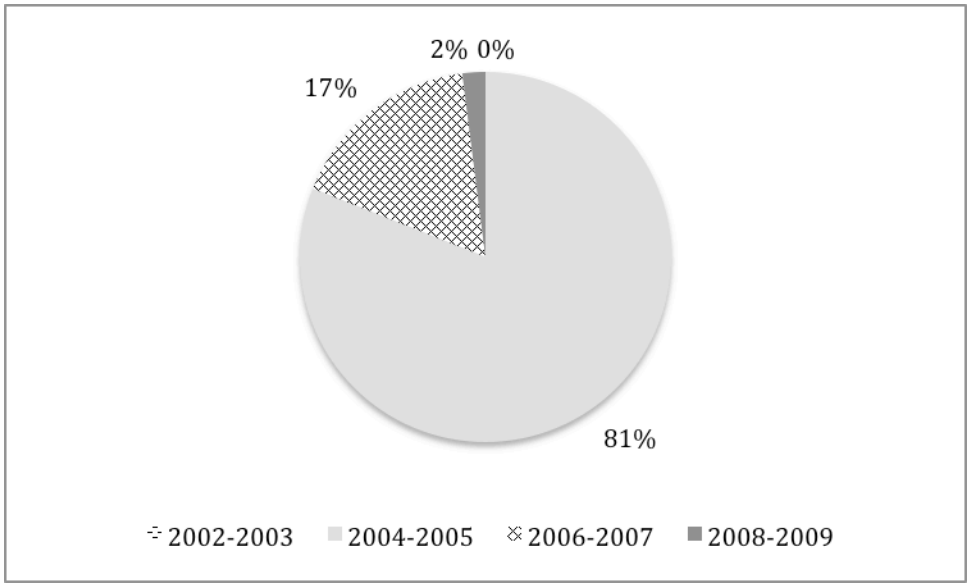

Figure 1. Percent of asset reuse by writers on the same product: 2002 to 2009.

2. What was the level of reuse over time by writers on different product teams, the shared work practitioners who reuse each other's knowledge?

The same 13 writers reused 46 medical images from a different product other than the product to which they were assigned (see Appendix A). Out of 1,443 selected assets reused (see Appendix B), the percentage was 3% (see Table 3). The highest percentage (53%) of asset reuse by writers on a different product also occurred in 2004-2005 (see Figure 2). Again 10 of the 13 writers were Web writers. Web writers received published copies of all books and monthly newsletters, presenting them with opportunities to see medical images available for reuse.

Table 3

Asset Reuse by Writers on a Different Product: 2002 to 2009

	2002-2003	2004-2005	2006-2007	2008-2009
Writer 1		2		
Writer 2		6		
Writer 3		1		
Writer 4		1		
Writer 5			8	
Writer 6		2	2	1
Writer 7		1		
Writer 8				
Writer 9		1	1	
Writer 10		6	1	
Writer 11				
Writer 12	2	4	4	
Writer 13			3	
Subtotal	2	24	19	1
Total				46

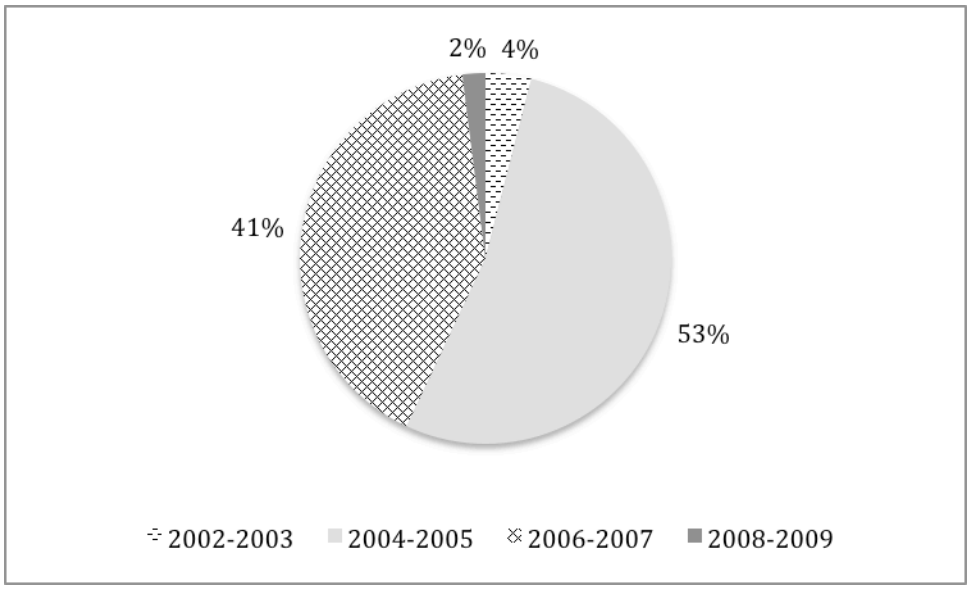

Figure 2. Percent of asset reuse by writers on a different product: 2002 to 2008.

3. What was the level of reuse over time by editors, the expertise-seeking novices?

Four editors reused 109 medical images from the same product to which they were assigned (see Appendix C). Out of 1,443 selected assets reused, this worked out to 7% (see Table 4). The highest percentage (55%) of asset reuse by editors on the same product occurred in 2006 (see Figure 3). Those four editors reused 26 medical images from a different product other than the product to which they were assigned (see Appendix A). Out of 1,443 selected assets reused, the percentage was 2%. The combined reuse by the four editors was 135 medical images. Out of 1,443 selected assets reused this was 9% (see Table 5). The highest percentage (46%) of asset reuse by editors on a different product also occurred in 2006 (see Figure 4). All four editors once again were with the Web team. Like the Web writers, they too were asked to keep production costs

to a minimum and benefited from seeing medical images that potentially could be reused in published copies of the books and monthly newsletters.

Table 4

Asset Reuse by Editors on the Same Product: 2002 to 2009

	2002-2003	2004-2005	2006-2007	2008-2009
Editor 1		6	4	
Editor 2		18	17	
Editor 3	1		7	
Editor 4		16	32	8
Subtotal	1	40	60	8
Total				109

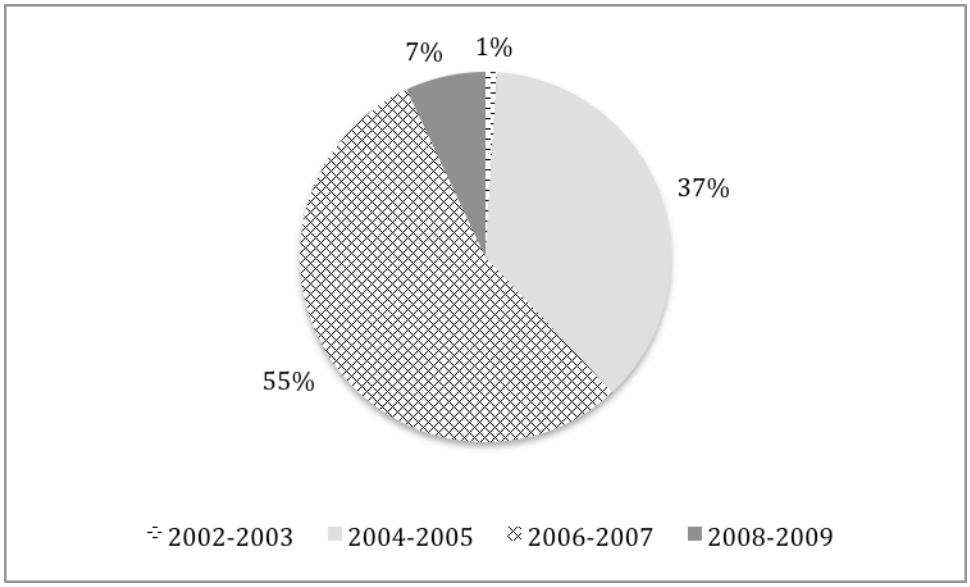

Figure 3. Percent of asset reuse by editors on the same product: 2002 to 2009.

Table 5

Asset Reuse by Editors on a Different Product: 2002 to 2009

	2002-2003	2004-2005	2006-2007	2008-2009
Editor 1	2		1	
Editor 2		3		
Editor 3				
Editor 4		7	11	
Subtotal	2	10	12	2
Total				26

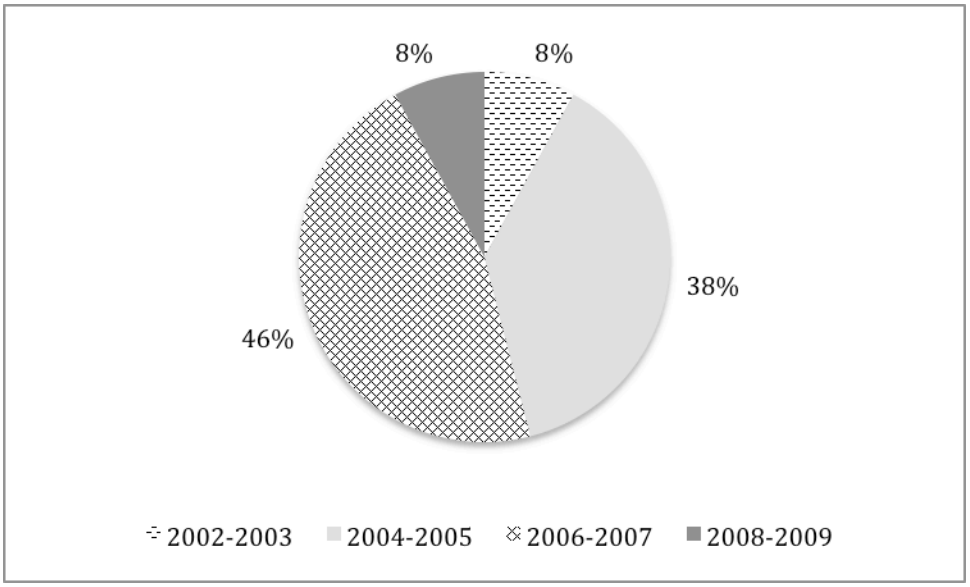

Figure 4. Percent of asset reuse by editors on a different product: 2002 to 2009.

4. What was the level of reuse over time by assistants, the secondary knowledge miners?

Eleven assistants reused 607 medical images (see Appendix D). Out of 1,443 selected assets reused, the percentage was 42% (see Table 6). The highest percentage (51%) of asset reuse by assistants occurred in 2006 (see Figure 5). Dissimilar to the

writers and editors who mostly worked on Web, eight of the 11 assistants worked with the writers and editors for the books and monthly newsletters. Books and monthly newsletter products contain many more files and thus take more time to download. For example assistants usually were the ones tasked to send book and newsletter files to foreign publishers for translation.

Table 6

Asset Reuse by Assistants: 2002 to 2009

	2002-2003	2004-2005	2006-2007	2008-2009
Assistant 1			4	
Assistant 2	30	4		
Assistant 3	10			
Assistant 4		12		
Assistant 5		5	6	2
Assistant 6		25		
Assistant 7		12		
Assistant 8	25	1	4	4
Assistant 9	1	11		
Assistant 10	2	5		
Assistant 11		40	298	106
Subtotal	68	115	312	112
Total				607

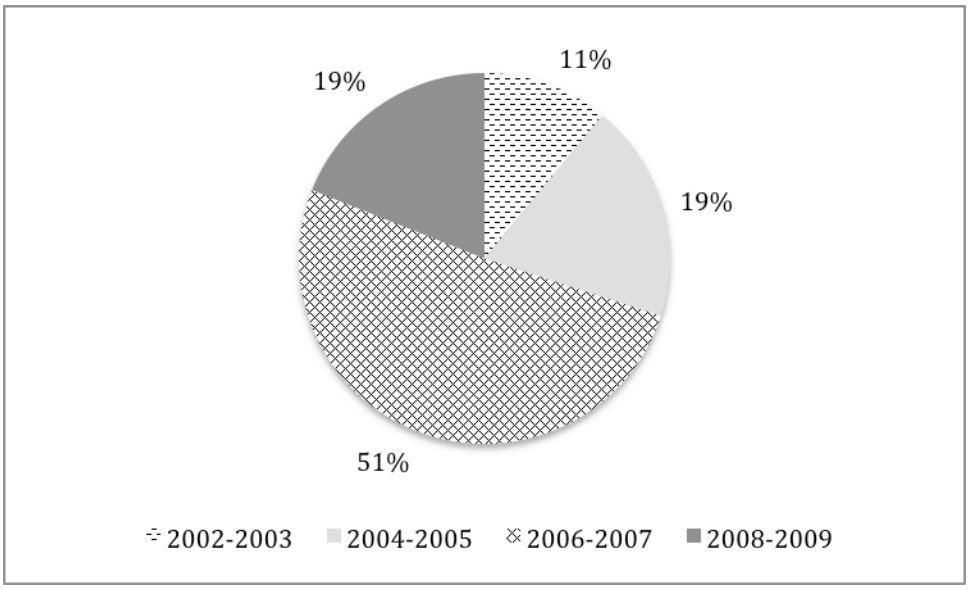

Figure 5. Percent of asset reuse by assistants: 2002 to 2009.

5. What was the level of reuse over time by managers, the primary knowledge miners?

The logs showed one manager reused 11 medical images during the study period of 2004-2005 from a different product other than the product to which the manager was assigned (see Appendix A). Out of 1,443 selected assets reused, the percentage was less than 1%. The manager was acting in the capacity of a departed editor during that time period.

6. What was the level of reuse over time by the designers and librarians, the on-demand practitioners who support the knowledge?

Eight designers reused 169 medical images (see Appendix E). Out of 1,443 selected assets reused (see Appendix B), this was 12% (see Table 7). The highest percentage (52%) of asset reuse by designers also occurred in 2006 (see Figure 6). The

designers assigned to Web downloaded from the repository less frequently than the designers who assigned to books and newsletters. Web writers and editors likely either manually emailed or put the medical images they retrieved from the repository on a file share.

Five librarians reused 233 medical images (see Appendix F). Out of 1,443 selected assets reused, the percentage was 16% (see Tables 8). The highest percentage (53%) of asset reuse by librarians occurred in 2004-2005 (see Figure 7). Librarians set up a group email box to respond to requests and largely downloaded smaller file requests for assets reuse.

Table 7

Asset Reuse by Designers: 2002 to 2009

	2002-2003	2004-2005	2006-2007	2008-2009
Designer 1	18	1	5	
Designer 2	3			
Designer 3		7	23	7
Designer 4		5	2	
Designer 5			9	
Designer 6	10	10	34	13
Designer 7				5
Designer 8		3	14	
Subtotal	31	26	87	25
Total				169

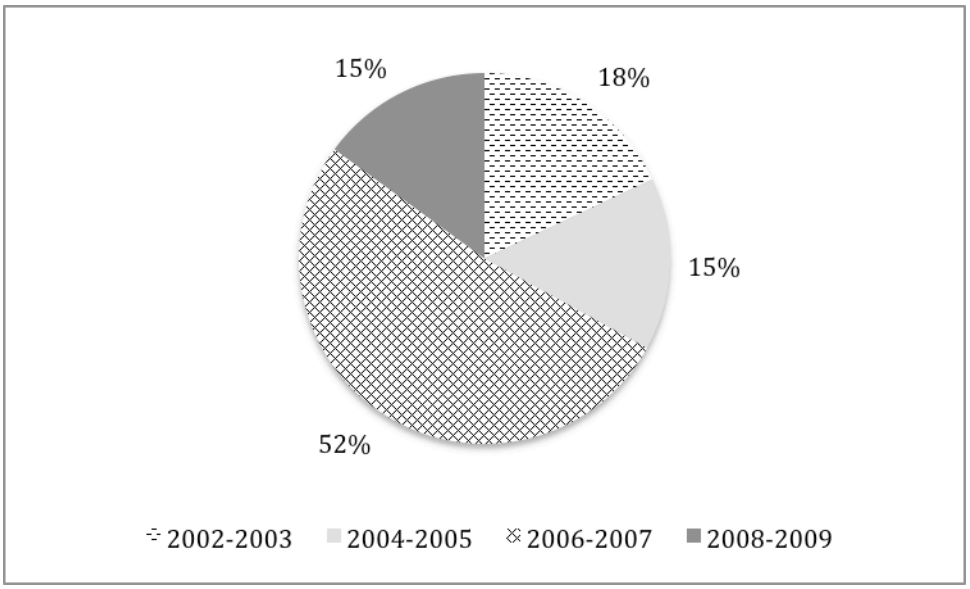

Figure 6. Percent of asset reuse by designers: 2002 to 2009.

Table 8

Asset Reuse by Librarians: 2002 to 2009

	2002-2003	2004-2005	2006-2007	2008-2009
Librarian 1	30	36	8	7
Librarian 2		18	9	
Librarian 3			4	2
Librarian 4	3	43	21	3
Librarian 5	17	24	8	
Subtotal	50	121	50	12
Total				233

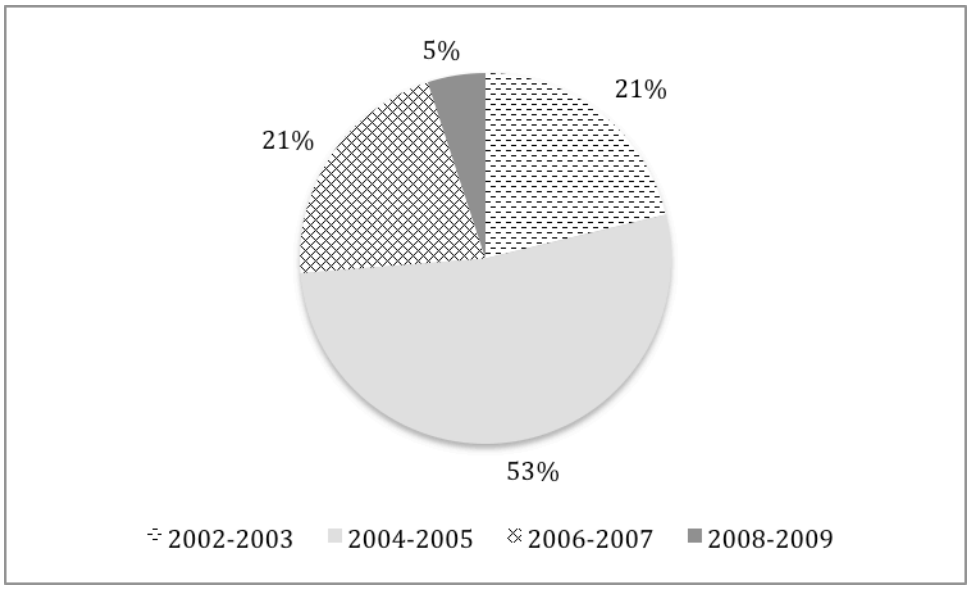

Figure 7. Percent of asset reuse by librarians: 2002 to 2009.

7. Which type of users were the primary users of the institutional repository?

Assistants (42%) and writers (20%) were the primary users of the repository, followed by librarians (16%), designers (12%), editors (9%) and the manager (1%) (see Figure 1). Regardless of the scenarios above, there was a significant number of staff using the repository either directly (writers, editors, manager and designers) or indirectly (assistants and librarians). Taking into account staff attrition, approximately half (42 staff out of 80 total) used the repository more than once during the study period.

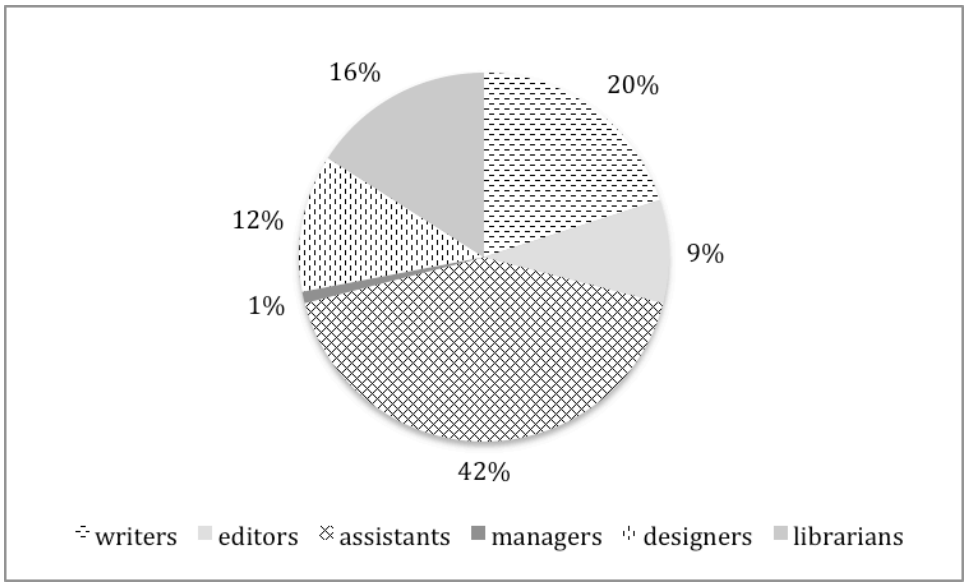

Figure 8. Percent of users of the repository: 2002 to 2009.

Summary

This researcher sought to understand the impact of an asset repository on an organization's processes by measuring the reuse of medical images to see if the repository had value. Forty-two staff directly downloaded 85,250 assets, including 11,059 images during the four one-year periods over the eight years studied. To equally represent all products, related medical images from one product downloaded from a single product folder in one login session were represented by one medical image. The level of reuse over time by writers, editors, and one manager of medical assets from different product teams was 83 medical images (see Appendix A). In 2002-2003 a total of 258 medical image assets were downloaded; in 2004-2005 the total assets were 963; in 2006-2007 the total assets were 114; and in 2008-2009 the total assets were 318 for a grand total of 1,443 medical images (see Appendices B-F). The 1,443 medical images selected showed

a minimum asset reuse rate of 13%. Taking staff attrition into account, there were 13 writers, four editors, 11 assistants, one manager, eight designers and five librarians in the population. One assistant downloaded 444 assets. The next largest downloads were by a writer with 83 assets, a librarian with 81 assets and an editor with 76 assets. Assistants to the writers, editors and managers were the primary users of the repository who leveraged the organization's assets for reuse. Chapter 5 includes the discussion, conclusions, and recommendations.

Chapter 5: Discussion, Conclusions, and Recommendations

Summary

The purpose of this study was to address a lack of evidence in the information systems and information science literature on reusing assets from digital repositories by investigating the reuse of medical images by staff at a health information publisher. Archival log files were used for a longitudinal census data analysis to examine and measure users' reuse of medical images. Population log file data of asset download events over an 8-year period were studied. The research questions, derived from Markus's theory of knowledge reuse (2001), Timbrell et al. (2003) and this researcher, focused on the amount of asset reuse over time by different users— assistants (42%), writers (20%), librarians (16%), designers (12%), editors (9%) and a manager (1%). The research confirmed the roles of the knowledge producer, knowledge intermediary and knowledge consumer as well as the user groups of shared work producers and shared work practitioners that were proposed by Markus's theory of knowledge reuse, a reuse typology based on roles in user groups.

Conclusions

The research questions (along with their source) and the answers are restated here. In addition a conclusion is offered with support to offer context and meaning to the data.

1. What was the level of reuse over time by writers on the same product team, the shared work producers who later reuse the knowledge they produced (Markus)? The answer was 17%. Writers, in their role as knowledge producers (Markus, 2001, 61), reused the medical images that were most familiar, either work created by themselves

previously or by colleagues on the same product team. By the 2008 study period the role of obtaining medical images shifted to the designers. Writers were the intended users of the repository and their level of reuse was expected to be higher.

2. What was the level of reuse over time by writers on different product teams, the shared work practitioners who reuse each other's knowledge (Markus)? The answer was 3%. These writers, who mostly who worked on the Web (see log data in Appendix 1), reused published medical images from other products. The costs to produce those medical images had already been incurred, and reuse afforded greater organizational efficiency, avoided unnecessary duplication and maximized the return on the original investment. Web writers had the most to gain from reuse as low-resolution medical images for the Web could be converted either from high-resolution medical images in books and newsletters or medical images used in TV and CD-ROM products. While writers for books and newsletters were less able to use low-resolution Web medical images (unless the original high-resolution image could be found), they could use each other's high-resolution medical images. Locating the original high-resolution medical image, if it existed, usually involved asking another department in the organization to track it down. Also it is possible that more reuse of both the same and of different products may be in the logs of the assistants, librarians and possibly the designers, who were all knowledge consumers (Markus, 2001, 61). User types assistants and librarians would have provided them to others, either as email attachments or as files placed in a local server exchange folder. Designers would have used the medical images either in another product or a reprint, update or new edition of an existing product. The percentage

of true asset reuse (reusing a medical image from another product) by writers who were the intended users was disappointingly low.

3. What was the level of reuse over time by editors, the expertise-seeking novices (Markus)? The answer was 9%. Like writers, editors also had the role as knowledge producers and according to Markus's theory the editors were actually shared work producers and shared work practitioners (Markus, 2001, 61). There was more asset reuse by editors than expected in this study.

4. What was the level of reuse over time by assistants, the secondary knowledge miners (Markus)? The answer was 42%. Actually according to Markus's theory, assistants were in the role of knowledge intermediary as they performed various roles in disseminating the product files to knowledge producers (writers and editors). Assistants were not intended to be the primary users of the repository.

5. What was the level of reuse over time by managers, the primary knowledge miners (Timbrell et al.)? The answer was less than 1%. Again, according to Markus's theory the manager was a knowledge consumer and shared work practitioner who was likely filling in for a departed editor. Other managers may have reused medical images from the repository but rather than retrieve assets directly had assistants retrieve assets and place them in a folder on a local file share server. Managers too were not the intended users of the repository and rarely needed to reuse medical images in content.

6. What was the level of reuse over time by the designers and librarians, the on-demand practitioners who support the knowledge (researcher)? The answer was 12 and 16%, respectively. In fact, according to Markus's theory, the designers were knowledge

consumers as they retrieved the medical images to apply them in some way. Those ways included changing labels, backgrounds, captions, layers, or even reworking the images by placing more emphasis on a certain part of the anatomy. On the other hand, librarians were like assistants, in that they prepared the medical images for reuse by indexing them and performed various roles in disseminating the assets to the knowledge producers (writers and editors). Designers were intended users of the repository, while librarians were not. Designers reusing their own product files instead of those from the repository could account for the lower than expected usage rate.

7. Which type of users were the primary users of the institutional repository?

The assistants (42%) as knowledge intermediaries were the primary users of the repository, followed a considerable margin by writers (20%), who had a dual role of knowledge producers and knowledge consumers. Completing the types of users of the repository, the writers were closely followed by the librarians (16%), designers (12%), editors (9%) and a manager (1%). While writers and editors were the intended primary users and expected to show the highest percentage of asset reuse, the number and variety of job roles of staff who did use the repository are also significant and contributed to the leveraging of current knowledge to achieve organizational goals.

Recommendations for Practice

This research provides recommendations for the practice of information systems, information science and other industries such as architecture, construction and software engineering where asset reuse is a critical component of effective group performance results.

1. This longitudinal census data analysis examined and measured users' reuse of medical images using archival log files and showed in contrast to the literature, the repository promoted general asset reuse over the 8-year period with total 85,250 total downloads, which included 11,059 images.

2. While during the study period, the intended users—writers and editors—only used the repository for medical image reuse about one third of the time (29% combined), they might have asked assistants as intermediaries to do the reuse, ultimately saving the organization time and money.

3. The repository ensured the uniformity, accuracy, stewardship, semantic consistency and accountability of the organization's official, shared master information assets. It was critical for a health information publisher to have a central location for the latest version of a product for a foreign publisher, reprint or new edition of a product. For the health information publisher the value and performance payoff offset the initial cost to create and customize the repository plus the ongoing resources to train staff, ingest content, support ongoing annual license and maintenance fees, fix errors and bugs, maintain and upgrade the repository.

4. Early repositories like GBS's studied focused on a simple workflow—creating a product, publishing a product and then archiving the production files. Today these limited workflows are largely extinct (Horodyski, 2012, p. 289). Also, rich descriptions in the form of metadata and taxonomy, which were not applied to the assets in this study, have been shown to contribute to reuse and generate more value from costly, high-quality assets (Haynes, 2013, p. 375). Today the optimal maturity level to manage assets in a

repository would facilitate the discovery of new uses of assets beyond their original intention (Durga, 2012, p. 186).

Recommendations for Related Research

Suggestions for related research on asset reuse that could be conducted include:

1. To get a more complete picture of the nature of asset reuse by the knowledge intermediaries in a population, a mixed methods study could be done using longitudinal census data analysis of archival log files and interview surveys.

2. To further confirm Markus's theory of reuse typology, a case study using prepared case protocol and semi-structured interviews of an established repository could extract the dominant reuse situations.

3. To better understand design reuse in industries like architecture, design and software coding, a Web-based questionnaire could support organizations with a "do-more-with-less" refrain, requiring that the reuse of existing assets be ruled out before new assets are created.

Social Impact

Asset reuse of medical images from a digital repository affected the work processes at GBS by helping staff realize greater efficiencies, increased productivity, time savings and workplace satisfaction. The volume of asset downloads by staff for reuse showed the repository met several organizational needs and was of value to the end-user community at this health information publisher. Such use can contribute to social change in other industries by informing the benefits of leveraging asset reuse for replication and innovation to gain sustainable competitive advantage. When digital

repositories are deployed to centralize collection and distribution of organizational assets, they help ensure accountability, extend information exchange and serve as tools for social and economic transformation.

In the healthcare industry there is a growing need for accurate, effective medical images to visually communicate health information and medical options to the public. Greater health literacy can lead to better knowledge about medical conditions and treatment, increase the use of preventive services, lower rates of hospitalization and emergency department visits, improve overall health status, and reduce the burden of health care costs to society.

Concluding Statement

There was value in a longitudinal census data analysis of archival log files that explicitly showed asset reuse, especially because the proprietary nature of corporate culture often prohibits such disclosure. Industries should no longer be reluctant to invest and build knowledge management systems. With good project definition, accounting for staff needs and an understanding of the types of explicit knowledge to be reused, managing and reusing an organization's ever-growing volume of assets to mitigate the cost of innovation and gain sustainable competitive advantage can be achieved.

References

Agarwal, R., & Lucas, H. C. (2005). The information systems identity crisis: Focusing on high-visibility and high-impact research. *MIS Quarterly, 29*(3), 381-398.

Aggestam, L., Backlund, P., & Persson, A. (2010). Supporting knowledge evaluation to increase quality in electronic knowledge repositories. *International Journal of Knowledge Management, 6*(1), 23-43.

Alavi, M., Kayworth, T. R., & Leidner, D. E. (2005). An empirical examination of the influence of organizational culture on knowledge management practices. *Journal of Management Information Systems, 22*(3), 191-224.

Alavi, M., & Leidner, D. E. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly, 25*(1), 107-136.

Alavi, M. (2000). Managing organizational knowledge. In R. W. Zmud & M. F. Price (Eds.), *Framing the domains of IT management: Projecting the future through the past* (pp. 15-28). Cincinnati, OH: Pinnaflex Educational Resources.

Allerton, H. E. (2003). Km today. *Training & Development, 57*(7), 35-36.

Alter, S. L. (1980). *Decision support systems: Current practice and continuing challenge.* Reading, MA: Addison Wesley Longman.

Altintas, N. I., & Semih, C. (2008). Managing large scale reuse across multiple software product lines. *Proceedings of the Tenth International Conference on Software Reuse: High Confidence Software Reuse in Large Systems, Bejing, China* (pp. 166-177). Berlin, Germany: Springer-Verlag. doi:10.1007/978-3-540-68073-4_15

Argyris, C. (1971). Management information systems: The challenge to rationality and emotionality. *Management Science, 17*(6), B275-B292.

Avram, G. (2006). At the crossroads of knowledge management and social software. *The Electronic Journal of Knowledge Management, 4*(1), 1-10.

Baskerville, R. L., & Myers, M. D. (2002). Information science as a reference discipline. *MIS Quarterly, 26*(1), 1-14.

Baxter, D., Gao, J., Case, K., Harding, J. Young, B., Cochrane, S., & Dani, S. (2007). An engineering design knowledge reuse methodology using process modeling. *Research in Engineering Design, 18*(1), 37-48.

Benbasat, I., & Zmud, R. W. (2003). The identity crisis within the IS discipline: Defining and communicating the discipline's core properties. *MIS Quarterly, 27*(2), 183-194.

Bijker, W. E. (1995). *Of bicycles, bakelites, and bulbs: Toward a theory of socio-technical change.* Cambridge, MA: MIT Press.

Bijker, W., Hughes, T., & Pinch, T. eds. (1987). *The social construction of technological systems*. Cambridge, MA: MIT Press.

Boh, W. F. (2008). Reuse of knowledge assets from repositories: A mixed methods study. *Information and Management, 45*(6), pp. 365-375.

Boland, R. J. (1978). The process and product of system design. *Management Science, 24*(9), 887-898.

Borgman, C. L. (1997). Now that we have digital collections, why do we need libraries? *Proceedings of the ASIS Annual Meeting, 34*, 27-33.

Broberg, O., & Posniak, I. (2001). Integrating aspects of working environment into a national research and development program on food technology. *Human Factors and Ergonomics in Manufacturing, 11*(12), 117-129.

Cavaye, A. L. M. (1996). Case study research: A multi-faced research approach for IS. *Information Systems Journal, 6*, 227-242.

Chen, A. N. K., & Edgington, T. M. (2005). Assessing value in organizational knowledge creation: Considerations for knowledge workers. *MIS Quarterly, 29*(2), 279-309.

Chen, M. Y., & Chen, A. P. (2006). Knowledge management performance evaluation: A decade of review from 1995 to 2004. *Journal of Information Science, 32*(1), 17-38.

Cheung, P.-K., Chau, P. Y. K., Au, A. K. K. (2008). Does knowledge reuse make a creative person more creative? *Decision Support Systems, 45*(2), 219-227.

Costa, D. (1999). Knowledge is power. *Computer Shopper, 19*(7), 252.

Davenport, T. H. (2005). *Thinking for a living: How to get better performance and results from knowledge workers.* Boston, MA: Harvard Business School Press.

Davenport, T. H., & Grover, V. (2001). Special issue: Knowledge management. *Journal of Management Information Systems, 18*(1), 3-4.

Davenport, T., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Boston, MA: Harvard Business School Press.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-339.

Demian, P., & Fruchter, R. (2006). An ethnographic study of design knowledge reuse in the architecture, engineering and construction industry. *Research in Engineering Design, 16*(4), 184-195.

Desouza, K. C., & Awazu, Y. (2005). Maintaining knowledge management systems: A strategic imperative. *Journal of the American Society for Information Science and Technology, 1*(3), 301-302.

Desouza, K. C., & Paquette S. (2013). Knowledge management: An introduction. *Journal of Digital Media Management, 2*(1), 74-77.

Dixon, N. M. (2000). Common knowledge: How companies thrive by sharing what they know. Boston, MA: Harvard Business School Press.

Dixon, W. J. (2007). *Social networks and knowledge management systems use in it services* (Unpublished doctoral dissertation). Walden University, Minneapolis, MN.

Doering, D. (2006). DAM the torpedoes! *EContent, 29*(2), 34-38.

Durcikova, A., & Everard, A. (2004). Managing the corporate zoo: A knowledge management perspective. *The Electronic Journal of Knowledge Management, 2*(1), 13-18.

Durga, A. (2012). A maturity model-based approach for DAM implementations. *Journal of Digital Media Management, 1*(2), 183-194.

Edvinsson, L., Dvir, R., & Roth, N. (2004). Innovations: the new unit of analysis in the knowledge era: the quest and context for innovation and efficiency and management of IC. *Journal of Intellectual Capital, 5*(1), 40-58.

doi:10.1108/14691930410512914

Eeles, P. (2008). Understanding architectural assets. *Seventh IEEE/IFIP Working Conference on Software Architecture*, 267-270.

Elias, M. A., & Hassen, M. G. (2010). Knowledge management. In R. Akerkar & P. Sajja (eds.), *Knowledge-based systems (pp. 95-128)*. Sudbury, MA: Jones and Bartlett Publishers.

Ettlie, J. E., & Kubarek, M. (2008). Design reuse in manufacturing and services. *Journal of Product Innovation Management, 25*(5), pp. 457-472.

English, M. J., & Baker, W. H. (2006). Rapid knowledge transfer: The key to success. *Quality Progress, 39*(2), 41-48.

Estublier, J., & Vega, G. (2005). Reuse and variability in large software applications. In Proceedings of the Joint Tenth European Software Engineering Conference and Thirteenth ACM SIGSOFT Symposium on the Foundations of Software Engineering, 316-325.

Fischer, G., & Ostwald, J. (2001). Knowledge management: Problems, promises, realities and challenges. *IEEE Intelligent Systems, 16*(1): 60-72.

Fox, N. (2002). Against the machine: The hidden luddite tradition in literature, art, and individual lives. Washington, D.C.: Shearwater Books.

Gantz, J., & Reinsel, D. (2010). *The digital universe decade – Are you ready?* IDC iView. Retrieved August 26, 2010, from http://digitalassetmanagement.org.uk/2010/07/12/the-digital-universe-decade/

Garud, R., & Kumaraswamy, A. (2005). Vicious and virtuous circles in the management of knowledge: The case of infosys technologies. *MIS Quarterly, 29*(1), 9-33.

Gerard, R., Downs, R. R., Marshall, J. J., & Wolfe, R. E. (2007). The software reuse working group: A case study in fostering reuse. *IEEE International Conference on Information Reuse and Integration*, 24-29.

Grandison, T., & Thomas, J.O. (2008). Asset reuse and service science: The delicate balance. *Portland International Center for Management of Engineering and Technology Proceedings*, 2384-2389.

Gray, P. H., & Durcikova, A. (2005). The role of knowledge repositories in technical support environments: Speed versus learning in user performance. *Journal of Management Information Systems, 22*(3), 159-190.

Gray, P. H., & Meister, D. B. (2006). Knowledge sourcing methods. *Information & Management, 43*(2), 142-156.

Grover, V., & Davenport, T. (2001). General perspectives on knowledge management: Fostering a research agenda. *Journal of Management Information Systems, 18*(1), 5-21.

Hackbarth, G., & Grover, V. (1999). The knowledge repository: Organizational memory information systems. *Information Systems Management, 16*(3), 21-30.

Haefliger, S., von Krogh, G., & Spaeth, S. (2008). Code reuse in open source software. *Management Science, 554*(1), 180-193.

Hahn, J., & Subramani, M. R. (2000). A framework of knowledge management systems: Issues and challenges for theory and practice. In *Proceedings of the Twenty First International Conference on Information Systems, Brisbane, Australia*, 302-312.

Hansen, M. T., Nohria, N., & Tierney, T. (1999). What's your strategy for managing knowledge. *Harvard Business Review, 77*(2), 106-116.

Harris, K. (2006). *Knowledge management enables the high-performance workplace.* Retrieved from Gartner website: http://www.gartner.com/DisplayDocument?ref=seo&id=489448

Hasanali, F. (2004). Critical success factors of knowledge management. In M. E .D. Koenig and T. K. Srikantaiah (eds.), *Knowledge Management Lessons Learned: What Works and What Doesn't* (pp. 55-69), Medford, NJ: Information Today.

Hatami, A., Galliers, R. D., & Huang, J. (2003). Exploring the impacts of knowledge (re)use and organizational memory on the effectiveness of strategic decisions: A longitudinal case study. *Proceedings of the 36th Annual Hawaii International Conference*, 1-11.

Haynes, T. E. (2013). Qualifying cost savings of a DAM department. *Journal of Digital Media Management, 1*(4), 375-384.

Heisig, P., Caldwell, N.H.M., Grebici, K., & Clarkson, P.J. (2010). Exploring knowledge and information needs in engineering from the past and for the future: Results from a survey. *Design Studies 31*(5), 499 -532.

Hirai, C., Uchida, Y., & Fujinami, T. (2007). A knowledge management system for dynamic organizational knowledge circulation. *International Journal of Information Technology and Decision Making, 6*(3), 509-522.

Hong, W., Thong, J. Y. L., Wong, W., & Tam, K. (2001). Determinants of user acceptance of digital libraries: An empirical examination of individual differences and system characteristics. *Journal of Management Information Systems, 18*(3), 97-124.

Horodyski, J. (2012). DAM initiative planning: An interview with David Diamond. *Journal of Digital Media Management, 1*(3), 296-300.

Horodyski, J. (2013). A great time for taxonomy and metadata: An interview with taxonomist, Joseph Busch. *Journal of Digital Media Management, 1*(4), 390-393.

Horodyski, J. (2013). Content, control and collections: An interview with content strategist, Mike Doane. *Journal of Digital Media Management, 2*(1), 74-77.

Hsiao, R. (2000). *The failure of IT-enabled change: A technological frame analysis.* Retrieved from National University of Singapore, NUS Business School Centre for e-Business Web site: http://www.fba.nus.edu.sg/fba/mscphd/0019_Hsiao_Rueylin.pdf

Iftikhar, Z. (2003). Developing an instrument for knowledge management project evaluation. *Electronic Journal of Knowledge Management, 1*(1), 55-62.

Jacobson, A., & Prusak, L. (2006). The cost of knowledge. *Harvard Business Review, 84*(11), 34.

Jagadish, H. V., Chapman, A., Elkiss, A., Jayapandian, M., Li, Y., Nandi, A., & Yu, C. (2007). Making database systems usable. *Proceedings of the ACM SIGMOD International Conference on Management of Data*, 13-24.

Jarvenpaa, S. L., & Staples, D. S. (2001). Exploring perceptions of organizational ownership of information and expertise. *Journal of Management Information Systems, 18*(1), 151-183.

Jauhiainen, E., & Honkaranta, A. (2007). Aspects on XML Document content reuse in organizations: Information reuse and integration. *IEEE International Conference*, 588 -593.

Kankanhalli, A., Lee, O.-K., & Lim, K.H. (2011). Knowledge reuse through electronic repositories: A study in the context of customer service support. *Information & Management, 48*(2-3), 106-113.

Kankanhalli, A., Tanudidjaja, F., Sutanto, J., & Tan, B. C. Y. (2003). The role of it in successful knowledge management initiatives. *Communications of the ACM, 46*(9), 69-73.

Karahanna, E., & Straub, D. W. (1999). The psychological origins of perceived usefulness and ease-of-use. *Information & Management, 35*, 237-250.

Keathley, E. F. (2012). Problem solving in DAMs—Don't reinvent the wheel: Resources and communities for sharing solutions. *Journal of Digital Media Management, 1*(1), 6-8.

Khoo, M. (2001, June). Community design of dlese's collections review policy: A technological frames analysis. In *Proceedings of the First ACM/IEE Joint Conference on Digital Libraries, Roanoke, Virginia*, 157-164.

Kilker, J., & Gay, G. (1998). The social construction of a digital library: A case study examining implications for evaluation. *Information Technology and Libraries, 17*(2), 60-70.

Kim, J., Suh, W., & Lee, H. (2003). Hypermedia modeling for linking knowledge to data warehousing system. *Expert Systems with Applications, 24*(1), 103-114.

Kim, K. K., & Kim, Y. S. (2011). Causal design knowledge: Alternative representation method for product development knowledge management. *Computer Aided Design*, 43(9), 1137-1153.

King, W. R. (2006). The critical role of information processing in creating an effective knowledge organization. *Journal of Database Management, 17*(1), 1-15.

Ko, D. G., & Dennis, A. R. (2011). Profiting from knowledge management: The impact of time and experience. *Information Systems Research, 22*(1),134-152.

Koenig, M. E. D., & Srikantaiah, T. K. (2004). Three stages of knowledge management. In M. E .D. Koenig and T. K. Srikantaiah (eds.), *Knowledge Management Lessons Learned: What Works and What Doesn't* (pp. 3-8), Medford, NJ: Information Today.

Larsen, G. (2006). Model-driven development: Assets and reuse. *IBM Systems Journal. 45*(3), 541-552.

Lee, H., Shin, B., & Higa, K. (2007). Telework vs. central work: A comparative view of knowledge accessibility. *Decision Support Systems, 43*(3), 687-700.

Lehr, J. K., & Rice R. E. (2002). Organizational measures as a form of knowledge management: A multitheoretic, communication-based exploration. *Journal of the American Society for Information Science and Technology, 53*(12), 1060-1073.

Lengnick Hall, C. A., & Griffith, R. J. (2011). Evidence-based versus tinkerable knowledge as strategic assets: A new perspective on the interplay between innovation and application. *Journal of Engineering and Technology Management, 28*(3) 147-167.

Lin, A., & Cornford, T. (2000). Framing implementation management. In *Proceedings of the Twenty First International Conference on Information Systems (ICIS)*, Brisbane, Australia.

Lindgren, R., Stenmark, D., & Ljungberg, J. (2003). Rethinking competence systems for knowledge-based organizations. *European Journal of Information Systems, 12*, 18-29.

Mac Morrow, N. (2001). Knowledge management: An introduction. *Annual Review of Information Science and Technology, 35*, 381-422.

Majchrzak, A., Cooper, L. P., & Neece, O. E. (2004). Knowledge Reuse for Innovation. *Management Science, 50*(2), 174-188.

Malhotra, Y. (2004). Why knowledge management systems fail: Enablers and constraints of knowledge management in human enterprises. In M. E. D. Koenig and T. K.

Srikantaiah (eds.), *Knowledge Management Lessons Learned: What Works and What Doesn't* (pp. 87-112), Medford, NJ: Information Today.

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science, 2*(1), 71-87.

Markus, M. L. (2001). Toward a theory of knowledge reuse: Types of knowledge reuse situations and factors in reuse success. *Journal of Management Information Systems, 18(*1), 57-93.

Markus, M. L. (1983). Power, politics and MIS implementation. *Communications of the ACM, 46*(7), 94-99.

May, D., & Taylor, P. (2003). Knowledge management with patterns: Developing techniques to improve the process of converting information to knowledge. *Communications of the ACM, 26*(6), 430-444.

Mayo, J. (2007). Sharing valuable image assets safely and efficiently. *Journal of Digital Asset Management, 3*, 181-184.

McDermott, R. (1999). Why information technology inspired but cannot deliver knowledge management. *California Management Review, 41*(4), 103-117.

McGill, T., Hobbs, V., & Klobas, J. (2003). User-developed applications and information systems success: A test of DeLone and McLean's model. *Information Resources Management Journal, 16*(1), 24-45.

McGrath, F., & Parkes, C. (2004). Cognitive style as a factor in the effective reuse of knowledge management systems. *Proceedings of the 2004 IEEE International Conference on Information Reuse and Integration, IRI-2004*, 382-387.

McInerney, C. (2002). Knowledge management: A practice still defining itself. *Bulletin of the American Society for Information Science and Technology, 28*(3), 14-15.

Nissen, M. E. (2005). Dynamic knowledge patterns to inform design: A field study of knowledge stocks and flows in an extreme organization. *Journal of Management Information Systems, 22*(3), 225-263.

O'Dell, C. S., Grayson, J., & Essaides, N. (1998). If only we knew what we know: The transfer of internal knowledge and best practice. New York: Free Press.

Orlikowski, W. J., & Baroudi, J. J. (1991). Studying it in organizations: Research approaches and assumptions. *Information Systems Research, 2*(1), 1-28.

Orlikowski, W. J., & Gash, D. C. (1994). Technological frames: Making sense of information technology in organizations. *ACM Transactions on Information Systems, 12(*2), 174-207.

Orlikowski, W. J., & Iacono C. S. (2001). Research commentary: Desperately seeking the "IT" in it research—a call to theorizing the it artifact. *Information Systems Research, 12*(2), 121-134.

Ouertani, M. Z., Parlikad, A. K., McFarlane, D. (2008). Asset information management: Research challenges. Proceedings of the 2nd International Conference on Research Challenges in Information Science, 361-370.

Parker, K. L. (2007). *Digital asset management primer: DAM, CMS, ECM...what's the difference and why should you care?* http://www.katherineparker.biz/id25.html. Accessed February 22, 2009.

Paul, D. L. (2006). Collaborative activities in virtual settings: A knowledge management perspective of telemedicine. *Journal of Management Information Systems, 22(*4), 143-176.

Petter, S., & Vaishnavi, V. (2008). Facilitating experience reuse among software project managers. *Information Sciences, 178(*7), 1783-1802.

Polanyi, M. (1962). *Personal knowledge: Towards a post-critical philosophy.* Chicago, IL: University of Chicago Press.

Polanyi, M. (1966). *The Tacit Dimension.* London: Routledge & Kegan Paul.

Ponzi, L. J. (2004). Knowledge management: Birth of a discipline. In M. E .D. Koenig and T. K. Srikantaiah (eds.), *Knowledge Management Lessons Learned: What Works and What Doesn't* (pp. 9-26), Medford, NJ: Information Today.

Qian, Z., & Bock, G.-W. (2005). An empirical study on measuring the success of knowledge repository systems. *Proceedings of the 38th Annual Hawaii International Conference*, 29.

Rao, L., & Osei-Bryson, K.-M. (2007). Towards defining dimensions of knowledge systems quality. *Expert Systems with Applications, 33*(2), 368-378.

Roda, C., Murphy, A. M., Gentchev, E., & Thomas, J. (2005). Digital image library development in academic environment: Designing and testing usability. *OCLC Systems and Services, 21*(4), 264-284.

Roe, D. (2010). *Do enterprise CMS products offer enough digital asset management?* CMS Wire. Retrieved May 25, 2010, http://www.cmswire.com/cms/enterprise-

cms/do-enterprise-cms-products-offer-enough-digital-asset-management-007690.php

Rothenberger, M. A., Dooley, K. J., Kulkarni, U. R., & Nada, N. (2003). Strategies for software reuse: A principal component analysis of reuse practices. *Software Engineering, 29*,(9), 825–837.

Sambamurthy, V., & Subramani M. (2005a). Special issue on information technologies and knowledge management. *MIS Quarterly, 29*(1), 1-7.

Sambamurthy, V., & Subramani M. (2005b). Special issue on information technologies and knowledge management. *MIS Quarterly, 29*(2), 193-195.

Sauer, P. W., & Yetton, P. W. (1997). Steps to the future: Fresh thinking on the management of IT-based organizational transformation. San Francisco: Jossey-Bass Publishers.

Scaffidi, C., Bogart, C., Burnett, M., Cypher, A., Myers, B., & Shaw, M. (2009). Predicting reuse of end-user web macro scripts. In *IEEE Symposium on Visual Languages and Human-Centric Computing*, 93-100.

Senge, P. (1990). The leader's new work: Building learning organizations. *Sloan Management Review, 32*(1), 7-23.

Shaw, N. C., Lee-Partridge, J. E., & Ang, J. S. K. (1997, December). Understanding end-user computing through technological frames. In *Proceedings of the Eighteenth International Conference on Information Systems*, Atlanta, GA.

Shin, M. (2004). A framework for evaluating economics of knowledge management systems. *Information & Management, 42*(1), 179-196.

Short, T. (2004). Knowledge management in action: Nine lessons learned. In M. E .D. Koenig and T. K. Srikantaiah (eds.), *Knowledge Management Lessons Learned: What Works and What Doesn't* (pp. 31-54), Medford, NJ: Information Today.

Southon, F. C. G., Todd, R. J., & Seneque, M. (2002). Knowledge management in three organizations: An exploratory study. *Journal of the American Society for Information Science and Technology, 53*(12), 1047-1059.

Spiegler, I. (2000). Knowledge management: A new idea or recycled concept' *Communications of the Association for Information Systems, 3*(14), 1-23.

Stenmark, D. (2002). Information vs. knowledge: The role of intranets in knowledge management. *IEEE Proceedings of the 25th Hawaii International Conference on System Sciences*, 1-10.

Stenmark, D. (2001). Leveraging tacit organizational knowledge. *Journal of Management Information Systems, 17*(3), 9-24.

Stewart, T. (2006). The great wheel of innovation. *Harvard Business Review, 84*(11), 14.

Sumner, T., & Dawe, M. (2001). Looking at digital library usability from a reuse perspective. *Proceedings of the First ACM/IEE-CS Joint Conference on Digital Libraries*, 416-425.

Tan, H. C., Carrillo, P. M., Anumba, C. J., Bouchlaghem, N., Kamara, J. M., & Udeaja, C.E. (2007). Development of a methodology for live capture and reuse of project knowledge in construction. *Journal of Management in Engineering, 23*(1), 18-26.

Tanriverdi, H. (2005). Information technology relatedness, knowledge management capability, and performance of multibusiness firms. *MIS Quarterly, 29*(2), 311-334.

Timbrell, G., Koller, S., Schefe, N., & Lindstaedt, S. (2005). A knowledge infrastructure hierarchy model for call-centre processes. *Journal of Universal Computer Science, 11*(4), 546-564.

Timbrell, G., Nelson, K., & Jewels, T. (2003). Knowledge reuse situations in an enterprise systems context. In E. Coakes (Ed.), *Knowledge Management: Current Issues and Challenges* (pp. 263-273), Hershey, PA: IDEA Publishing.

van Zolingen, S. J., Streumer, J. N., & Stooker, M. (2001). Problems in knowledge management: A case study of a knowledge-intensive company. *International Journal of Training and Development, 5*(3), 168-184.

Venkatesh, V, & Davis, F. D. (2000). A theoretical extension of Technology Acceptance Model: Four longitudinal field studies. *Management Science, 46*(2), 186-204.

Venkatesh, V, Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27(*3), 425-478.

VISTA Publishing Perspectives. (2006). Simon & shuster: The evolution of digital asset management systems at s & s. Retrieved from February 20, 2009, http://www.author2reader.net/about_us/research.html

VISTA Publishing Perspectives. (2006). John wiley & sons: Time and cost savings at john wiley by using digital asset management. Retrieved from February 20, 2009, http://www.author2reader.net/about_us/research.html

Wasko, M. M., & Faraj, S. (2000). "It is what one does": Why people participate and help others in electronic communities of practice. *Journal of Strategic Information Systems, 9*(2-3), 155-173.

Weber, R. (2003). Editor's comments: Still desperately seeking the IT artifact. *MIS Quarterly, 27*(2), iii-xi.

Appendix A: Reuse of Medical Images by Staff on a Different Product

	Primary Product	Reuse Product	Filename	Date Time
Writer 1	Web	Newsletter 1	Health_Letter/normalfattycirrotic.eps	2/8/05 2:16
Writer 1	Web	Newsletter 1	Health_Letter/liverB.eps	2/8/05 12:53
Writer 2	Web	Book	Books:Family_Health_Book/HB18-10.tif	11/1/04 2:01
Writer 2	Web	Book	Books:Family_Health_Book/HB35-2.tif	2/14/05 3:21
Writer 2	Web	TV	Health_Network/H6A826.PSD	2/14/05 3:23
Writer 2	Web	Book	Books:Pregnancy:533/MCHP3PP1.eps	3/23/05 10:13
Writer 2	Web	TV	Health_Network/AH6A723.PSD	3/23/05 10:18
Writer 2	Web	CD-ROM	Family_Health_cd-rom/hb5g047.bmp	3/23/05 10:26
Writer 3	Web	Book	Books:Arthritis/Hands.tif	2/11/05 11:32
Writer 4	Web	Newsletter 1	Health_Letter:05/lungs.eps	2/8/05 3:13
Writer 5	Newsletter 1	Newsletter 2	HealthSource:2004/dentalcare.eps	1/18/06 15:22
Writer 5	Newsletter 1	Book	Books:Hearing:71/05_tinnitus.eps	1/18/06 15:36
Writer 5	Newsletter 1	Book	Incontinence:77/sling procedures.eps	6/20/06 14:35
Writer 5	Newsletter 1	Book	Incontinence:1/pelvic floor muscle.eps	6/20/06 14:39
Writer 5	Newsletter 1	Book	Depression:C1/DepColor.eps	9/5/06 11:28
Writer 5	Newsletter 1	Book	Images:p_q_r/r7_ischemicstroke.jpg	10/20/06 10:44
Writer 5	Newsletter 1	Newsletter 3	HealthQuest:1999:05/Ischemic_notext.tif	10/20/06 10:44
Writer 5	Web	Newsletter 2	HealthSource:2003:05/pap.eps	11/3/06 13:17
Writer 6	Web	Newsletter 2	Newsletters:HS0303/id1_vaccines.jpg	10/6/04 2:38
Writer 6	Web	TV	Multimedia:backup:K-N/Papilloma.eps	11/8/04 4:05
Writer 6	Web	Book	Family_Health_619/HB23-37b.eps	3/27/06 11:47
Writer 6	Web	Book	Incontinence:77/sling proceures.eps	1/15/07 12:34
Writer 6	Web	Book	Books:Vision:141/C3_fig6.eps	1/14/08 14:57
Writer 7	Web	Book	Books:Heart_Book/36.tif	1/13/05 11:43
Writer 9	Web	Book	Books:Headache/AnatomyArt.eps	1/6/05 1:13
Writer 9	Web	Book	Books:Alzheimers:81/HB18-01.tif	6/21/06 8:27
Writer 10	Newsletter 3	TV	Multimedia:A-/hearingAidcopy.eps	6/15/04 3:04
Writer 10	Newsletter 3	Web	Multimedia:AN-AR/arth7_toothbrush.jpg	3/14/05 11:00
Writer 10	Newsletter 3	Web	Multimedia:H-J/ha22_bedsock.jpg	3/14/05 11:00
Writer 10	Newsletter 3	Book	Chronic_Pain:109/C10_goodpstre.tif	4/7/05 10:13
Writer 10	Newsletter 3	TV	Multimedia:O-P/p22_finalposture.psd	4/7/05 10:13
Writer 10	Newsletter 3	Premium	Premiums:Healthy_Back/pg10.eps	4/7/05 10:13
Writer 10	Newsletter 3	Book	Fitness:134/HWES106C6006-01.tif	1/3/06 13:56
Writer 12	Web	Book	Bakers.eps	7/25/02 12:04
Writer 12	Web	Book	Fig21.tif	8/9/02 7:47
Writer 12	Web	Book	Healthy_Weight/CH07PtreeVR2.eps	10/11/04 2:47
Writer 12	Web	Book	Family_Health/HBC38-01_intertrigo.tif	10/12/04 11:49
Writer 12	Web	TV	Layered:D-FN/epidural.psd	1/18/05 2:45
Writer 12	Web	Newsletter 2	HealthSource/skin.eps	2/7/05 2:49
Writer 12	Web	Newsletter 2	HealthSource:1997/ACNE1.tif	2/9/06 12:12
Writer 12	Web	Newsletter 3	HealthQuest:1999/acne.tif	2/9/06 12:31
Writer 12	Web	Book	The_Plan:70/200021932-001.tif	4/18/06 15:49
Writer 12	Web	Newsletter 3	HealthQuest:2004/sunlotion.eps	1/18/07 13:22
Writer 13	Newsletter 3	Web	Fsm_Fitness/TPH1120432_80.JPG	12/22/06 7:59
Writer 13	Newsletter 3	Web	Fsm_Fitness/fsm7_bikehlmt.jpg	12/27/06 7:55
Writer 13	Newsletter 3	Book	Self-Care:105/HQ31-2.tif	12/27/06 8:26
Editor 1	Web	Book	BBIL1604.tif	1/28/02 16:53
Editor 1	Web	Book	CP0101.tif	11/7/02 10:56
Editor 1	Web	Book	Pregnancy:373/BBIL2303.TIF	3/15/06 15:38
Editor 2	Web	Newsletter 3	Newsletters:HQ0006/pr1_midwives.jpg	12/14/04 1:54
Editor 2	Web	TV	Health_Network/AH6A192.PSD	3/24/05 3:59
Editor 2	Web	TV	Health_Network/AH6AB14.PSD	3/29/05 11:00
Editor 5	Web	Book	Family_Health/ww5r248.jpg	6/11/04 9:50
Editor 5	Web	Book	Family_Health/HB22-11ai.eps	6/15/04 11:24
Editor 5	Web	TV	Health_Network/AH6a925.PSD	1/24/05 8:11
Editor 5	Web	Newsletter 1	Health:Stroke/aneurysm.eps	2/11/05 2:47
Editor 5	Web	Book	Family_Health/HB37-PD71142.psd	3/1/05 9:46
Editor 5	Web	Newsletter 1	Health:1998:02/rttrcff.eps	3/23/05 7:55

(continues)

	Primary Product	Reuse Product	Filename	Date Time
Editor 5	Web	Newsletter 2	HealthSource:04/frozenshoulder.eps	4/4/05 1:50
Editor 5	Web	Newsletter 1	Health:2000:03/NeckPain2.eps	1/25/06 12:27
Editor 5	Web	Newsletter 2	HealthSource:04/frozenshoulder.eps	4/4/05 1:50
Editor 5	Web	Newsletter 1	Health:2000:03/NeckPain2.eps	1/25/06 12:27
Editor 5	Web	Newsletter 1	Health:05:01/Sacoilliac.eps	2/3/06 13:00
Editor 5	Web	Book	Family_Health_1055/HB33-25ai.eps	2/9/06 15:32
Editor 5	Web	Newsletter 1	Health:1999:11/HL119909.eps	4/21/06 11:46
Editor 5	Web	Newsletter 1	Health:Sleep/cnap1.eps	4/21/06 13:37
Editor 5	Web	Book	Vision:C1/C2_fig4.eps	10/23/06 12:56
Editor 5	Web	Newsletter 1	Health:1996:07/HL079614.eps	11/9/06 10:48
Editor 5	Web	Book	Family_Health_915/HB30-AH6A947.tif	12/11/06 14:57
Editor 5	Web	Book	Alzheimers:C1/IntrnlStrctrsR2.eps	1/8/07 9:31
Editor 5	Web	TV	Health_Network/AH6A042.TIF	2/12/07 11:33
Editor 5	Web	Book	Family_Health_341/HBIV-30.tif	2/12/07 12:56
Editor 5	Web	Newsletter 1	Health:2008:03/bowel.eps	4/14/08 10:11
Editor 5	Web	Newsletter 1	Health:1999:02/Tumor.eps	5/20/08 14:12
Manager 1	Web	Book	Prostate/CH01TORS.eps	6/14/04 9:08
Manager 1	Web	Book	Prostate/seed_implant.tif	6/14/04 12:23
Manager 1	Web	Book	Prostate/CH06Hell2.tif	6/14/04 4:51
Manager 1	Web	Book	Family_Health/CH05Micro.eps	12/9/04 2:39
Manager 1	Web	Book	Self-Care/HB34-22ai.eps	12/9/04 2:39
Manager 1	Web	TV	Multimedia:Q-R/HQ34-2B.tif	12/9/04 2:39
Manager 1	Web	Newsletter 1	Health:HL0104/r7_enlargeprostate.jpg	12/9/04 2:39
Manager 1	Web	Book	Family_Health/BPH.eps	12/9/04 2:39
Manager 1	Web	Book	Prostate/HB34-22.tif	12/9/04 2:45
Manager 1	Web	Book	Prostate/CH05BPH.eps	12/9/04 2:45
Manager 1	Web	Book	Prostate/CH05Micro.eps	3/8/05 1:09

Appendix B: Reuse of Medical Images by Writers: 2002 to 2009

	Reuse Number	Filename	File Path	Date Time
Writer 1	1	aa22_allresp1.jpg	Multimedia:backup:O-P	8/25/04 3:00
Writer 1	2	normalfattycirrotic.eps	Multimedia:Newsletters:Health_Letter	2/8/05 12:16
Writer 1	3	liverB.eps	Multimedia:Newsletters:Health_Letter	2/8/05 12:53
Writer 1	4	fsm1_exerciselegs.jpg	Multimedia:FO-G	3/8/05 12:56
Writer 2	1	virus_cycle.jpg	Multimedia:S-WL	6/16/04 8:05
Writer 2	2	d7_digestionsystem.jpg	Multimedia:backup:D-FN	6/16/04 8:18
Writer 2	3	hb1_heartworks.jpg	Multimedia:backup:H-J	6/16/04 8:39
Writer 2	4	ww5r021 2.jpg	Multimedia:WM-Z	6/16/04 9:02
Writer 2	5	d7_digestionsystem.jpg	Multimedia:backup:D-FN	6/16/04 1:16
Writer 2	6	ww5r021 2.jpg	Multimedia:WM-Z	6/16/04 1:57
Writer 2	7	hbp7_lifestylemod.jpg	Multimedia:backup:H-J	6/30/04 7:54
Writer 2	8	hpb7_bloodpresschart.jpg	Multimedia:backup:H-J	6/30/04 8:52
Writer 2	9	hpb7_bloodtest.jpg	Multimedia:backup:H-J	6/30/04 9:19
Writer 2	10	aortic.jpg	Multimedia:backup:AN-AR	7/19/04 3:12
Writer 2	11	hemo_geneticblocks.jpg	Multimedia:backup:H-J	7/20/04 2:51
Writer 2	12	f7_mortonsneuroma.jpg	Multimedia:D-FN	8/30/04 4:37
Writer 2	13	ans7_chickenpox.jpg	Multimedia:AN-AR	8/31/04 9:22
Writer 2	14	ww5rn91.jpg	Multimedia:WM-Z	9/22/04 8:16
Writer 2	15	virus_cycle2.jpg	Multimedia:S-WL	9/29/04 4:02
Writer 2	16	r7_neuron.jpg	Multimedia:Q-R	10/9/04 8:20
Writer 2	17	pn7_painsource.jpg	Multimedia:O-P	10/9/04 9:01
Writer 2	18	ww5r270.jpg	Multimedia:WM-Z	10/9/04 4:46
Writer 2	19	HB18-10.tif	Multimedia:Books:Family_Health_Book	11/1/04 2:01
Writer 2	20	ww5r308_big.jpg	Multimedia:WM-Z	11/9/04 2:25
Writer 2	21	pn7_painsource.jpg	Multimedia:O-P	11/5/04 1:18
Writer 2	22	d1_gastroenteritis.jpg	Multimedia:D-FN	11/9/04 8:27
Writer 2	23	wl7_properliftingthu.jpg	Multimedia:S-WL	12/5/04 8:51
Writer 2	24	ans7_shoulder.jpg	Multimedia:AN-AR	12/2/04 8:59
Writer 2	25	p22_knee_chest.jpg	Multimedia:O-P	12/9/04 1:05
Writer 2	26	p22_standposture.psd	Multimedia:zz_Layered:O-P	1/5/05 9:07
Writer 2	27	ww5rj49t.jpg	Multimedia:WM-Z	2/2/05 11:14
Writer 2	28	r7_sicklecells.jpg	Multimedia:Q-R	2/9/05 2:56
Writer 2	29	arth1_fibromyalgia.jpg	Multimedia:AN-AR	2/14/05 3:15
Writer 2	30	HB35-2.tif	Multimedia:Books:Family_Health_Book	2/14/05 3:21
Writer 2	31	H6A826.PSD	Multimedia:Am_Health_Network	2/14/05 3:23
Writer 2	32	r7_autosomalrecessive.jpg	Multimedia:Q-R	2/28/05 1:53
Writer 2	33	d7_reflux.jpg	Multimedia:D-FN	3/8/05 7:57
Writer 2	34	r7_plantarwart.jpg	Multimedia:Q-R	3/23/05 8:55
Writer 2	35	MCHP3PP1.eps	Print:Books:Healthy_Pregnancy	3/23/05 1:13
Writer 2	36	AH6A723.PSD	Multimedia:Am_Health_Network	3/23/05 1:18
Writer 2	37	HB5G047.BMP	Multimedia:Family_Health_Book	3/23/05 1:26
Writer 3	1	Hands.tif	Multimedia:Books:Arthritis	2/11/05 1:32
Writer 3	2	arth7_hipprosthesis.jpg	Multimedia:AN-AR	2/17/05 2:53
Writer 3	3	hb1_novelfactors.jpg	Multimedia:H-J	2/21/05 1:42
Writer 3	4	c1_understandingCancer.jpg	Multimedia:AS-C	2/21/05 1:49
Writer 3	5	c11_hairloss.jpg	Online:images:a_b_c:c_Cancer	1/24/06 3:57
Writer 4	1	dia1_loseweight.jpg	Multimedia:backup:Q-R	6/16/04 5:03
Writer 4	2	r1_hrtcustomize.jpg	Multimedia:D-FN	6/18/04 1:43
Writer 4	3	dia22_bst_record.jpg	Multimedia:D-FN	9/22/04 1:46
Writer 4	4	dia1_insulin_inj.jpg	Multimedia:D-FN	10/1/04 1:15
Writer 4	5	dia1_manage_exer.jpg	Multimedia:H-J	10/3/04 2:14
Writer 4	6	hb1_heartekg.jpg	Multimedia:D-FN	10/8/04 2:04
Writer 4	7	da1_manage_exer.jpg	Multimedia:S-WL	12/2/04 1:00
Writer 4	8	wl1_wpstress_assess2.jpg	Multimedia:S-WL	12/2/04 2:41
Writer 4	9	da1_manage_exer.jpg	Multimedia:AS-C	12/2/04 4:32
Writer 4	10	bn1_hangoverheadache.jpg	Multimedia:D-FN	12/2/04 5:00
Writer 4	11	dia1_bs_testing.jpg	Multimedia:backup:AN-AR	12/3/04 2:18
Writer 4	12	lungs.eps	Newsletters:Health:05:Images	2/8/05 3:13

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	Reuse Number	Filename	File Path	Date Time
Writer 4	13	lcc_citrus.jpg	Multimedia:K-N	2/22/05 2:50
Writer 4	14	fsm6_measurewaist.jpg	Multimedia:FO-G	3/3/05 2:40
Writer 4	15	fl1_parentolderchild1.jpg	Multimedia:D-FN	3/9/05 10:27
Writer 5	1	gingivitis.eps	Print:Newsletters: Maintaining_Healthy	1/18/06 4:08
Writer 5	2	dentalcare.eps	Print:Newsletters:HealthSource:04:01	1/18/06 5:22
Writer 5	3	05_tinnitus.eps	Print:Books:Hearing: 71-82	1/18/06 5:36
Writer 5	4	sling PROCEDURES.eps	Print:Books:Managing_Incontinence	6/20/06 4:35
Writer 5	5	pelvic floor musclesBW.eps	Print:Books:Managing_Incontinence	6/20/06 4:39
Writer 5	6	DepColor.eps	Print:Books:Depression: C1-C8	9/5/06 11:28
Writer 5	7	r7_ischemicstroke.jpg	Online:images:p_q_r:r_Diseases	10/2/06 1:44
Writer 5	8	Ischemic_notext.tif	Print:Newsletters:HealthQuest:1999:05	10/2/06 1:44
Writer 5	9	insetcarotidA.eps	Print:newsletters:Health_Letter:n-z	10/2/06 1:00
Writer 5	10	pap.eps	Print:Newsletters:HealthSource:2003:05	11/3/06 3:17
Writer 5	11	asym.eps	Print:newsletters:Health_Letter:2006:04	11/3/06 3:25
Writer 5	12	arthritiscoverartA.eps	Print:newsletters:Health:Arthritis	12/8/06 1:14
Writer 6	1	ans7_breastimplant2.jpg	Multimedia:S-WL	6/28/04 1:53
Writer 6	2	w22_calfstretch.jpg	Multimedia:H-J	7/23/04 1:54
Writer 6	3	id1_vaccines.jpg	Multimedia:Newsletters:2003	10/6/04 2:38
Writer 6	4	Papilloma.eps	Multimedia:backup:K-N	11/8/04 4:05
Writer 6	5	ww5r021.jpg	Multimedia:WM-Z	3/23/05 3:42
Writer 6	6	w7_paptest.jpg	Online:images:v_w_x_y_z:w_Health	1/10/06 4:12
Writer 6	7	hdg7_hysterecomytype.jpg	Online:images:g_h_i:hdg_Health	1/16/06 9:03
Writer 6	8	ww5r021.jpg	Online:non-convention:all	1/16/06 9:05
Writer 6	9	w7_paptestthu.jpg	Online:images:v_w_x_y_z:w_Health	3/7/06 8:17
Writer 6	10	HB23-37b.eps	Print:Books:Family_Health_619-660	3/27/06 1:47
Writer 6	11	w11_bonedensity.jpg	Online:images:v_w_x_y_z:w_Health	4/28/06 8:27
Writer 6	12	w7a_womenrisk.jpg	Online:images:v_w_x_y_z:w_Health	12/2/06 5:07
Writer 6	13	sling PROCEDURES.eps	Print:Books:Managing_Incontinence	1/15/07 1:34
Writer 6	14	C3_fig6.eps	Print:books:Guide_to_Better_Vision	1/14/08 4:57
Writer 7	1	mh1_medications.jpg	Multimedia:backup:H-J	6/7/04 1:24
Writer 7	2	hbp1_dasheating.jpg	Multimedia:backup:K-N	6/7/04 1:49
Writer 7	3	m1_pcprevention.jpg	Multimedia:backup:O-P	6/7/04 2:01
Writer 7	4	pr1_csection.jpg	Multimedia:backup:K-N	6/11/04 1:14
Writer 7	5	mh1_schizophrenia.jpg	Multimedia:backup:AS-C	6/15/04 9:32
Writer 7	6	ch1_JRA.jpg	Multimedia:backup:H-J	6/15/04 1:12
Writer 7	7	hbp1_exercise.jpg	Multimedia:backup:AS-C	6/18/04 1:39
Writer 7	8	ch1_JRA.jpg	Multimedia:backup:H-J	6/23/04 3:48
Writer 7	9	hb22_heartchbers.jpg	Multimedia:backup:H-J	6/29/04 2:46
Writer 7	10	hpb7_bloodpresschartnew.jpg	Multimedia:backup:AS-C	6/30/04 8:27
Writer 7	11	ch1_bunchofkids.jpg	Multimedia:backup:H-J	6/30/04 9:10
Writer 7	12	hb22_heartlocation.jpg	Multimedia:backup:H-J	6/30/04 3:11
Writer 7	13	hbp1_kidshypertension.jpg	Multimedia:backup:D-FN	7/8/04 10:00
Writer 7	14	fn1_healthylivinglayer.jpg	Multimedia:backup:H-J	7/8/04 10:26
Writer 7	15	hb1_novelfactors.jpg	Multimedia:backup:H-J	7/8/04 10:57
Writer 7	16	hb1_diet.jpg	Multimedia:backup:K-N	7/8/04 11:09
Writer 7	17	mh1_depressionquiz.jpg	Multimedia:backup:K-N	7/9/04 1:48
Writer 7	18	m1_pcprevention.jpg	Multimedia:AN-AR	8/4/04 11:47
Writer 7	19	ans7_kidneysection_b.jpg	Multimedia:H-J	9/1/04 10:11
Writer 7	20	hb7_coronaryarteries.jpg	Multimedia:H-J	9/3/04 1:40
Writer 7	21	hb1_cardiacrehabprogr.jpg	Multimedia:K-N	9/7/04 9:41
Writer 7	22	mh1_suicide.jpg	Multimedia:FO-G	9/13/04 1:39
Writer 7	23	fsm1_coldreality.jpg	Multimedia:H-J	9/13/04 2:14
Writer 7	24	id1_commoncold.jpg	Multimedia:AS-C	9/17/04 2:07
Writer 7	25	c1_hairloss.jpg	Multimedia:H-J	9/24/04 4:46
Writer 7	26	hbv7_ctscan.jpg	Multimedia:A-G	10/4/04 1:32
Writer 7	27	ah6a331_big.jpg	Multimedia:K-N	10/9/04 4:43
Writer 7	28	mh1_reminders.jpg	Multimedia:H-J	10/2/04 9:21
Writer 7	29	hbp1_bpguidelines.jpg	Multimedia:H-J	10/2/04 9:40
Writer 7	30	hbp1_exercise.jpg	Multimedia:H-J	10/2/04 9:51
Writer 7	31	hb1_heartattack.jpg	Multimedia:D-FN	10/9/04 1:45

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	Reuse Number	Filename	File Path	Date Time
Writer 7	32	dia1_heart_diablink.jpg	Multimedia:K-N	11/2/04 1:04
Writer 7	33	mh1_medications.jpg	Multimedia:H-J	11/4/04 1:40
Writer 7	34	hbp1_diuretics.jpg	Multimedia:S-WL	11/5/04 2:29
Writer 7	35	w1_HRTheart.jpg	Multimedia:H-J	11/6/04 1:14
Writer 7	36	hbp1_eatingout.jpg	Multimedia:K-N	11/8/04 4:27
Writer 7	37	mh1_depression.jpg	Multimedia:H-J	12/9/04 1:16
Writer 7	38	hbp1_eatingin.jpg	Multimedia:H-J	12/9/04 1:42
Writer 7	39	hbp1_exercise.jpg	Multimedia:H-J	12/9/04 1:55
Writer 7	40	hbp1_nondrugtherapy.jpg	Multimedia:H-J	12/7/04 9:29
Writer 7	41	hbp7_lifestylemod.jpg	Multimedia:Premiums: Lower_Risk	12/3/04 9:27
Writer 7	42	mh1_medications.jpg	Multimedia:K-N	1/3/05 12:14
Writer 7	43	dia1_heart_diablink.jpg	Multimedia:D-FN	1/3/05 12:36
Writer 7	44	hbp1_strategy.jpg	Multimedia:H-J	1/10/05 2:48
Writer 7	45	hb1_heartbloodtests.jpg	Multimedia:H-J	1/11/05 1:53
Writer 7	46	36.tif	Multimedia:Books:Heart_Book	1/13/05 1:43
Writer 7	47	fn1_healthylivinglayer.jpg	Multimedia:D-FN	1/14/05 1:32
Writer 7	48	m1_fatherhood.jpg	Multimedia:K-N	1/14/05 1:37
Writer 7	49	hbp1_exercise.jpg	Multimedia:H-J	1/14/05 1:38
Writer 7	50	hc1_schoolboy.jpg	Multimedia:H-J	1/21/05 1:48
Writer 7	51	mh1_exercise.jpg	Multimedia:K-N	1/24/05 8:05
Writer 7	52	hb1_heartdisease.jpg	Multimedia:H-J	1/28/05 8:16
Writer 7	53	hb1_heartattack.jpg	Multimedia:H-J	2/4/05 10:05
Writer 7	54	dia1_heart_diablink.jpg	Multimedia:D-FN	2/4/05 10:06
Writer 7	55	hb1_heartangio.jpg	Multimedia:H-J	2/4/05 10:06
Writer 7	56	w1_intimacy.jpg	Multimedia:S-WL	2/4/05 3:49
Writer 7	57	hb1_heartekg.jpg	Multimedia:H-J	2/11/05 1:18
Writer 7	58	w1_scoliosis.jpg	Multimedia:S-WL	2/11/05 2:24
Writer 7	59	mh1_depFamily.jpg	Multimedia:K-N	2/14/05 8:56
Writer 7	60	hbp1_riskfactors.jpg	Multimedia:H-J	2/21/05 4:57
Writer 7	61	hb7_chestxrayinside.jpg	Multimedia:H-J	2/24/05 3:31
Writer 7	62	w1_breastrecon.jpg	Multimedia:S-WL	2/25/05 2:45
Writer 7	63	fsm1_physact_dsbl.jpg	Multimedia:FO-G	2/25/05 3:02
Writer 7	64	dia1_manage_exer.jpg	Multimedia:D-FN	2/25/05 3:03
Writer 7	65	fn1_HealthyWeight.jpg	Multimedia:D-FN	2/25/05 3:04
Writer 7	66	w1_plantarfascitis.jpg	Multimedia:S-WL	2/25/05 3:05
Writer 7	67	ha1_septum.jpg	Multimedia:H-J	3/1/05 2:43
Writer 7	68	fn1_healthylivinglayer.jpg	Multimedia:D-FN	3/4/05 11:54
Writer 7	69	hc1_chestxray.jpg	Multimedia:H-J	3/4/05 12:48
Writer 7	70	hc1_chestpain.jpg	Multimedia:H-J	3/11/05 1:00
Writer 7	71	w1_osteoporosis.jpg	Multimedia:S-WL	3/11/05 1:12
Writer 7	72	hc1_runningshoe.jpg	Multimedia:H-J	3/11/05 1:17
Writer 7	73	dia1_manage_exer.jpg	Multimedia:D-FN	3/14/05 1:17
Writer 7	74	hc1_celiac.jpg	Multimedia:H-J	3/17/05 9:33
Writer 7	75	hc1_couplestretching.jpg	Multimedia:H-J	3/17/05 3:46
Writer 7	76	cc1_plygnd_safety.jpg	Multimedia:AS-C	3/17/05 3:55
Writer 7	77	mh1_roadrage.jpg	Multimedia:K-N	3/21/05 1:02
Writer 7	78	mh1_anger.jpg	Multimedia:K-N	3/22/05 8:03
Writer 7	79	hbp1_manandhair.jpg	Multimedia:H-J	3/23/05 2:32
Writer 7	80	hc1_rainshowerhappy.jpg	Multimedia:H-J	3/28/05 2:53
Writer 7	81	mh1_gettinghelp3.jpg	Multimedia:K-N	3/29/05 1:42
Writer 7	82	hbp1_riskfactors.jpg	Multimedia:H-J	3/29/05 1:11
Writer 7	83	mh1_drunkdriving.jpg	Multimedia:K-N	3/30/05 1:05
Writer 8	1	pr7_pelvictilt2.jpg	Multimedia:backup:O-P	6/24/04 2:56
Writer 8	2	pr7_diaphragm.jpg	Multimedia:K-N	7/29/04 6:08
Writer 8	3	LiJ_LG.jpg	Multimedia:Books:Guide_to_Self-Care	9/12/04 3:03
Writer 8	4	fn1_dietaryguidelines.jpg	Multimedia:D-FN	1/13/05 8:20
Writer 9	1	bn1_exerciseheadache.jpg	Multimedia:backup:AS-C	6/30/04 3:45
Writer 9	2	a1_earlydiagnosis.jpg	Multimedia:A-G	8/27/04 2:32
Writer 9	3	arth1_knee.jpg	Multimedia:AN-AR	8/27/04 2:36
Writer 9	4	bn1_braintumor.jpg	Multimedia:AS-C	8/27/04 3:06

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	Reuse Number	Filename	File Path	Date Time
Writer 9	5	a1_DementiaOvrView.jpg	Multimedia:A-G	9/1/04 11:01
Writer 9	6	aa9_TreatmenAs50x50.jpg	Images:2002_Archive:09_subcenter	9/13/04 9:29
Writer 9	7	bn17a_braintraum.jpg	Images:2003_Archive:AS-C	9/13/04 1:59
Writer 9	8	a1_practicaltips.jpg	Multimedia:A-G	11/1/04 2:29
Writer 9	9	bn1_braintumor.jpg	Multimedia:AS-C	11/1/04 3:27
Writer 9	10	ww990304.jpg	Multimedia:WM-Z	11/2/04 1:02
Writer 9	11	bn7_cerebellum.jpg	Multimedia:AS-C	11/2/04 1:03
Writer 9	12	ans7_frontallobe.jpg	Multimedia:AN-AR	11/9/04 1:04
Writer 9	13	arthritisfeature.jpg	Multimedia:AN-AR	12/6/04 1:42
Writer 9	14	bn1_parkinsons.jpg	Multimedia:AS-C	12/6/04 1:47
Writer 9	15	ha1_sexandseniors.jpg	Multimedia:H-J	12/6/04 1:03
Writer 9	16	mh1_kidsdepression.jpg	Multimedia:K-N	12/6/04 1:12
Writer 9	17	w1_intimacy.jpg	Multimedia:S-WL	12/6/04 1:45
Writer 9	18	id1_syringe.jpg	Multimedia:H-J	12/6/04 1:22
Writer 9	19	ch1_chronicHDache.jpg	Multimedia:AS-C	12/6/04 2:00
Writer 9	20	pn7_spinalcordTHU.jpg	Multimedia:O-P	12/6/04 2:12
Writer 9	21	a1_DementiaOvrView.jpg	Multimedia:A-G	12/6/04 2:13
Writer 9	22	a1_drugsAD100.jpg	Multimedia:A-G	12/6/04 2:23
Writer 9	23	bn7_brainstem.jpg	Multimedia:AS-C	1/4/05 9:30
Writer 9	24	bn22_Cerebrum.jpg	Multimedia:AS-C	1/6/05 8:41
Writer 9	25	AnatomyArt.eps	Multimedia:Books:Headache:Images	1/6/05 1:13
Writer 9	26	bn22_durapia.jpg	Multimedia:AS-C	1/12/05 9:53
Writer 9	27	bn22_brainbasics.jpg	Multimedia:AS-C	1/12/05 4:15
Writer 9	28	bn22_brainstem.jpg	Multimedia:AS-C	1/17/05 9:45
Writer 9	29	fl1_grief.jpg	Multimedia:D-FN	1/20/05 3:52
Writer 9	30	fsm22_bikehlmt_intro.jpg	Multimedia:FO-G	1/20/05 4:12
Writer 9	31	hc1_winterFamily.jpg	Multimedia:H-J	1/20/05 4:22
Writer 9	32	a1_DementiaOvrView.jpg	Multimedia:A-G	2/4/05 12:39
Writer 9	33	ch1_migraines.jpg	Multimedia:AS-C	2/15/05 9:25
Writer 9	34	bn22_brainbasics.jpg	Multimedia:AS-C	2/25/05 9:49
Writer 9	35	arth1_arthritispain.jpg	Multimedia:AN-AR	3/14/05 3:32
Writer 9	36	a1_DementiaBasics.jpg	Multimedia:A-G	3/14/05 4:14
Writer 9	37	bn1_ReliefWorkplace.jpg	Multimedia:AS-C	3/15/05 9:10
Writer 9	38	fl22_digitalthermometer.jpg	Online:images:d_e_f:fl_Healthy_Baby	1/23/06 1:30
Writer 9	39	c22_rt.jpg	Online:images:a_b_c:c_Cancer	1/23/06 1:31
Writer 9	40	ch11_medicine.jpg	Online:images:a_b_c:ch_Children's_Health	1/25/06 1:03
Writer 9	41	fl22_introtemp.jpg	Online:images:d_e_f:fl_Healthy_Baby	1/27/06 2:58
Writer 9	42	bn22_lobes.jpg	Online:images:a_b_c:bn_Nervous_System	2/13/06 1:55
Writer 9	43	bn7_siscom.jpg	Online:images:a_b_c:bn_Nervous_System	2/22/06 4:39
Writer 9	44	a7_brainMRI.jpg	Online:images:a_b_c:a_Alzheimer's	5/5/06 9:56
Writer 9	45	d7_pancystsThu.jpg	Online:images:d_e_f:d_Digestive	6/5/06 10:03
Writer 9	46	a7_brainfunctions.eps	Online:images:a_b_c:a_Alzheimer's	6/12/06 9:22
Writer 9	47	bn7_functionalbrain.jpg	Onlineimages:a_b_c:bn_Nervous_System	6/12/06 9:25
Writer 9	48	bn7_functionalbrainTHU.jpg	Onlineimages:a_b_c:bn_Nervous_System	6/12/06 1:58
Writer 9	49	HB18-01.tif	Print:books: Alzheimers_Disease	6/21/06 8:27
Writer 9	50	bn7_temporal.jpg	Onlineimages:a_b_c:bn_Nervous_System	7/13/06 1:15
Writer 9	51	bn7_gmaknife2.jpg	Onlineimages:a_b_c:bn_Nervous_System	7/25/06 4:38
Writer 9	52	a11_holidays.jpg	Onlineimages:a_b_c:billboard_images_11s	8/22/06 9:12
Writer 9	53	ww5rl55.jpg	Online:non-convention:all	8/30/06 1:38
Writer 9	54	ans7_frontallobe.jpg	Onlineimages:a-z:ans_Ask_a_Specialist	11/8/06 3:56
Writer 9	55	p22_spinecurves.jpg	Onlineimages:p_q_r:p_Progrs	11/3/06 8:42
Writer 9	56	bn11_childheadache.jpg	Onlineimages:a_b_c:bn_Nervous_System	1/12/07 1:07
Writer 9	57	bn22_back15montage.jpg	Onlineimages:a_b_c:bn_Nervous_System	1/25/07 1:08
Writer 10	1	hearingAidcopy.eps	Multimedia:A-G	6/15/04 3:04
Writer 10	2	woman_on_scale.eps	Multimedia:Newsletters:HealthQuest	2/11/05 1:28
Writer 10	3	arth7_toothbrush.jpg	Multimedia:AN-AR	3/14/05 1:00
Writer 10	4	ha22_bedsock.jpg	Multimedia:H-J	3/14/05 1:00
Writer 10	5	C10_goodpstre.tif	Print:Books:Chronic_Pain:109-122	4/7/05 10:13
Writer 10	6	p22_finalposture.psd	Multimedia:zz_Layered:O-P	4/7/05 10:13
Writer 10	7	pg10.eps	PrintPremiums:Your_Healthy_Back	4/7/05 10:13

(continues)

	Reuse Number	Filename	File Path	Date Time
Writer 10	8	HW-ES-106P-MC6006-01.tif	Print:Books: Fitness_for_EveryBody	1/3/06 13:56
Writer 10	9	cold.eps	Print:newsletters:HealthQuest:05:12	5/3/06 17:57
Writer 10	10	houseboundkids.eps	Print:newsletters:HealthQuest:2006:03	6/1/06 10:41
Writer 11	1	fl1_baby_crying.jpg	Multimedia:D-FN	3/11/05 1:33
Writer 11	2	pr1_laobrsigns.jpg	Multimedia:O-P	3/11/05 2:27
Writer 11	3	fl22_milia.jpg	Multimedia:D-FN	3/11/05 3:41
Writer 11	4	pr1_hospital.jpg	Multimedia:O-P	3/11/05 4:00
Writer 11	5	fl22_newbornacne.jpg	Multimedia:D-FN	3/11/05 4:06
Writer 11	6	wl1_pregnantatwork.jpg	Multimedia:S-WL	3/9/05 11:57
Writer 12	1	Bakers.eps	Not available	7/5/02 12:04
Writer 12	2	fig21.tif	Not available	8/9/02 7:47
Writer 12	3	CH07PtreeVR2copy.eps	CH07PtreeVR2copy.eps	10/1/04 2:47
Writer 12	4	r7_ringworm.jpg	Multimedia:Q-R	10/2/04 7:31
Writer 12	5	HBC38-01_intertrigo.tif	Multimedia:Books:Family_Health_Book	10/2/04 1:49
Writer 12	6	ans7_pityriasis-rosea.jpg	Multimedia:Q-R	10/1/04 2:06
Writer 12	7	re1_granola.jpg	Multimedia:Q-R	12/1/04 7:13
Writer 12	8	re1_chocsouffle.jpg	Multimedia:D-FN	12/2/04 1:23
Writer 12	9	d1_surgicalinstrum.jpg	Multimedia:D-FN	12/3/04 8:23
Writer 12	10	epidural.psd	Multimedia:zz_Layered:D-FN	1/18/05 2:45
Writer 12	11	sn1_sunpro.jpg	Multimedia:S-WL	2/2/05 3:33
Writer 12	12	skintypethu.jpg	Multimedia:S-WL	2/7/05 2:48
Writer 12	13	skin.eps	Multimedia:Newsletters:HealthSource	2/7/05 2:49
Writer 12	14	sn7_skinlayers.jpg	Multimedia:S-WL	3/22/05 9:34
Writer 12	15	w7_prepostlaser.jpg	Multimedia:S-WL	3/28/05 7:52
Writer 12	16	sn22_swimmersitch.jpg	Multimedia:S-WL	3/30/05 1:01
Writer 12	17	ans7_poison_ivy.jpg	Multimedia:AN-AR	3/30/05 1:08
Writer 12	18	aa6_ragweedillust.jpg	Multimedia:A-GAM	3/30/05 1:11
Writer 12	19	sn22_heatrash.jpg	Multimedia:S-WL	3/30/05 1:46
Writer 12	20	fn11_fastfood.jpg	Onlineimages:d_e_f:fn_Food_&_Nutrition	1/24/06 1:15
Writer 12	21	sn11_cosmeticsurgery.jpg	Onlineimages:s_t_u:sn_Skin	1/26/06 7:35
Writer 12	22	ACNE1.tif	Print:Newsletters:HealthSource:1997:10	2/9/06 12:12
Writer 12	23	acne.tif	Print:Newsletters:HealthQuest:1999:12	2/9/06 12:31
Writer 12	24	fn6_saltshaker.jpg	Onlineimages:d_e_f:fn_Food_&_Nutrition	3/9/06 10:59
Writer 12	25	sr02_431101.jpg	Online:Bookstore:sr_specialreports:skin	3/21/06 5:52
Writer 12	26	c11_melanoma.jpg	Onlineimages:a_b_c:billboard_images_11s	3/23/06 1:42
Writer 12	27	200021932-001.tif	Print:books:The_Plan_10_Steps: 70-129	4/18/06 5:49
Writer 12	28	fn11_lowfatdiet.jpg	Onlineimages:a_b_c:billboard_images_11s	5/11/06 3:01
Writer 12	29	ha7_melanoma.jpg	Onlineimages:g_h_i:ha_Senior_Health	8/23/06 1:52
Writer 12	30	r7_skinc.jpg	Onlineimages:p_q_r:r_Diseases	8/23/06 1:52
Writer 12	31	sunlotion.eps	Print:Newsletters:HealthQuest:04:06	1/18/07 1:22
Writer 12	32	sn22_melanomaintro.jpg	Onlineimages:s_t_u:sn_Skin	1/10/08 1:15
Writer 12	33	sn7_hairfollicle.jpg	Onlineimages:s_t_u:sn_Skin	5/6/08 13:09
Writer 12	34	sn7_basicskinlayers.jpg	Onlineimages:s_t_u:sn_Skin	6/2/08 13:51
Writer 12	35	skin_type.jpg	Online:non-convention:all	6/4/08 10:47
Writer 12	36	sn22_rosacea.jpg	Onlineimages:s_t_u:sn_Skin	9/11/08 1:55
Writer 13	1	TPH1120432_80.JPG	Online:photo_shoots:d_e_f:fsm_Fitness	12/2/06 7:59
Writer 13	2	fsm7_bikehlmt_rightthu.jpg	Onlineimages:d_e_f:fsm_Fitness	12/7/06 7:55
Writer 13	3	HQ31-2.tif	Print:books:Guide_to_Self-Care:105-116	12/7/06 8:26
Writer 13	4	PDC084H.TIF	Print:Newsletters:HealthQuest:2000:04	1/8/07 11:37
Writer 13	5	Stretching1.eps	Print:newsletters:EmbodyHealth	2/16/07 9:11

Appendix C: Reuse of Medical Images by Editors: 2002 to 2009

	Reuse Number	Filename	File Path	Date Time
Editor 1	1	BBIL1604.tif	Not applicable	1/28/02 1:53
Editor 1	2	CP0101.tif	Not applicable	1/7/02 10:56
Editor 1	3	dia22_athletesfoot.jpg	Multimedia:S-WL	6/4/04 12:00
Editor 1	4	smalleye.jpg	Multimedia:Q-R	9/10/04 3:55
Editor 1	5	r7_amslergrid.jpg	Multimedia:H-J	11/6/04 4:29
Editor 1	6	ha22_eyeglaucoma2.jpg	Multimedia:H-J	11/8/04 2:16
Editor 1	7	ha1_advdirec.jpg	Multimedia:H-J	12/9/04 9:59
Editor 1	8	ha7_hearingaidparts.jpg	Multimedia:H-J	2/22/05 1:07
Editor 1	9	id7_tapeworm1.jpg	Onlineimages:g_h_i:id_Infectious_Disease	1/24/06 3:08
Editor 1	10	hdg7_pfannenstiel.jpg	Onlineimages:g_h_i:hdg_Health_Decision	1/25/06 1:54
Editor 1	11	dn11_couplethерapy.jpg	Onlineimages:d_e_f:dn_Depression	2/8/06 16:27
Editor 1	12	BBIL2303.TIF	Print:Complete_Book_of_Pregnancy	3/15/06 1:38
Editor 1	13	ans7_cleft_palate.jpg	Onlineimages:a-z:ans_Ask_a_Specialist	3/15/06 1:32
Editor 2	1	hb6_outerdefibrilla.jpg	Multimedia:AS-C	11/7/04 1:44
Editor 2	2	bn7_brainbasics.jpg	Multimedia:H-J	12/1/04 6:10
Editor 2	3	intestinal_big.jpg	Multimedia:D-FN	12/1/04 6:58
Editor 2	4	d22_colonrectum.jpg	Multimedia:D-FN	12/3/04 4:42
Editor 2	5	d22_colonoscopy.jpg	Multimedia:A-GAM	12/3/04 5:11
Editor 2	6	aa7_peakflow.jpg	Multimedia:O-P	12/1/04 1:19
Editor 2	7	pr1_safebabies.jpg	Multimedia:O-P	12/4/04 1:27
Editor 2	8	pr1_midwives.jpg	Multimedia:Images:Newsletters	12/4/04 1:54
Editor 2	9	ah6a212.jpg	Multimedia:A-GAM	2/7/05 1:37
Editor 2	10	badliver.jpg	Multimedia:AS-C	2/7/05 1:44
Editor 2	11	goodliver.jpg	Multimedia:FO-G	2/7/05 1:55
Editor 2	12	aa1_mdinhaler.jpg	Multimedia:A-GAM	2/7/05 2:05
Editor 2	13	ch1_JRA.jpg	Multimedia:AS-C	2/7/05 2:08
Editor 2	14	pn22_backroutine.jpg	Multimedia:O-P	2/8/05 11:12
Editor 2	15	ans7_biliary_system.jpg	Multimedia:AN-AR	2/8/05 11:14
Editor 2	16	fl22_pacifiertemp.jpg	Multimedia:D-FN	2/9/05 6:05
Editor 2	17	fl1_bigbaby.jpg	Multimedia:D-FN	2/24/05 2:39
Editor 2	18	pr1_epidural.jpg	Multimedia:O-P	2/24/05 2:53
Editor 2	19	AH6A192.PSD	Multimedia:American_Health_Network	3/24/05 3:59
Editor 2	20	aa6_microflu.jpg	Multimedia:A-GAM	3/29/05 1:36
Editor 2	21	AH6AB14.PSD	Multimedia:American_Health_Network	3/29/05 1:00
Editor 2	22	as6_peakflowsystem.jpg	Online:images:a_b_c:as_Asthma	1/23/06 9:54
Editor 2	23	d6_stahnkeexercise.jpg	Online:images:d_e_f:d_Digestive	5/5/06 12:26
Editor 2	24	pn6_darcie.jpg	Online:images:p_q_r:pn_Pain_Management	5/30/06 5:56
Editor 2	25	d7_panclivergall.jpg	Online:images:d_e_f:d_Digestive	6/23/06 4:21
Editor 2	26	mh11_bipolar.jpg	Online:images:m_n_o:mh_Mental_Health	8/3/06 11:32
Editor 2	27	m11_mensexquiz.jpg	Online:images:m_n_o:m_Men's_Health	8/4/06 9:15
Editor 2	28	a11_memoryloss.jpg	Online:images:a_b_c:billboard_images_11s	8/22/06 9:45
Editor 2	29	w11_mpweightgain.jpg	Online:images:v_w_x_y_z:w_Health	8/28/06 1:28
Editor 2	30	ch11_sicktoddler.jpg	Online:images:a_b_c:ch_Children's_Health	9/13/06 4:51
Editor 2	31	w11_hrtalternative.jpg	Online:images:v_w_x_y_z:w_Health	9/15/06 3:12
Editor 2	32	aa111_sinusitis.jpg	Online:images:a_b_c:aa_Allergy	9/22/06 4:48
Editor 2	33	as11_childasthma.jpg	Online:images:a_b_c:as_Asthma	9/22/06 4:50
Editor 2	34	dia11_newdialysismeds.jpg	Online:images:d_e_f:dia_Diabetes	10/3/06 1:32
Editor 2	35	ha22_adbalance1.jpg	Online:images:g_h_i:ha_Senior_Health	11/1/06 1:28
Editor 2	36	arth11_gels.jpg	Online:images:a_b_c:arth_Arthritis	11/1/06 1:32
Editor 2	37	ch11_seriousboy.jpg	Online:images:a_b_c:ch_Children's_Health	11/9/06 1:05
Editor 2	38	fsm22_corebridge.jpg	Online:images:d_e_f:fsm_Fitness	11/2/06 1:20
Editor 3	1	highbloodpressure.eps	Not available	8/12/02 4:58
Editor 3	2	arth11_oaresearch.jpg	Online:images:a_b_c:arth_Arthritis	1/8/07 1:13
Editor 3	3	arth11_cane.jpg	Online:images:a_b_c:arth_Arthritis	1/11/07 1:32
Editor 3	4	arth11_walker.jpg	Online:images:a_b_c:arth_Arthritis	1/11/07 1:32
Editor 3	5	c11_stemcells.jpg	Online:images:a_b_c:c_Cancer	1/12/07 9:55
Editor 3	6	p6_propersleepthu.jpg	Online:images:p_q_r:p_Programs	1/25/07 1:24
Editor 3	7	r7_neuron.jpg	Online:images:p_q_r:r_Diseases	2/14/07 1:32

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	Reuse Number	Filename	File Path	Date Time
Editor 3	8	c11_bloodtest.jpg	Online:images:a_b_c:c_Cancer	2/14/07 3:56
Editor 4	1	r7_earanatomy.jpg	Multimedia:WM-Z	6/10/04 9:55
Editor 4	2	ww5r248.jpg	Multimedia:Books:Family_Health_Book	6/11/04 9:50
Editor 4	3	HB22-11ai.eps	Multimedia:Books:Family_Health_Book	6/15/04 1:24
Editor 4	4	mh6_lightbox.jpg	Multimedia:backup:K-N	6/22/04 1:50
Editor 4	5	mh7_lightspectrum.jpg	Multimedia:backup:Q-R	7/2/04 9:53
Editor 4	6	r7_calfstretch.jpg	Multimedia:backup:Q-R	7/9/04 7:31
Editor 4	7	r7_earanatomy.jpg	Multimedia:Q-R	7/13/04 4:56
Editor 4	8	r1_sars.jpg	Multimedia:Q-R	11/1/04 2:55
Editor 4	9	r1_sars2.jpg	Multimedia:Q-R	11/9/04 1:46
Editor 4	10	r22_musclestrain.jpg	Multimedia:Q-R	12/2/04 1:49
Editor 4	11	r7_actinickeratosis.jpg	Multimedia:Q-R	12/3/04 8:38
Editor 4	12	r1_adhd.jpg	Multimedia:backup:D-FN	12/7/04 1:36
Editor 4	13	AH6A925.PSD	American_Health_Network	1/24/05 8:11
Editor 4	14	wl1_jobdepression.jpg	Multimedia:S-WL	1/26/05 2:23
Editor 4	15	r22_musclestrain.jpg	Multimedia:Q-R	1/28/05 7:50
Editor 4	16	aneurysm.eps	Print:Newsletters:Health_Letter: Stroke	2/11/05 2:47
Editor 4	17	HB37-PD71142.psd	Multimedia:Books:Family_Health_Book	3/1/05 9:46
Editor 4	18	sr1_stressctr.jpg	Multimedia:S-WL	3/1/05 9:46
Editor 4	19	bn1_causeheadache.jpg	Multimedia:AS-C	3/1/05 9:47
Editor 4	20	hdg6_backwelcome.jpg	Multimedia:H-J	3/18/05 1:08
Editor 4	21	hdg7_spinalfusion.jpg	Multimedia:H-J	3/21/05 2:36
Editor 4	22	rttrcff.eps	Print:Newsletters:Health_Letter:1998	3/23/05 7:55
Editor 4	23	frozenshoulder.eps	Print:Newsletters:HealthSource:04	4/4/05 1:50
Editor 4	24	p22_lordo_kypho.jpg	Online:images:p_q_r:p_Programs	1/4/06 16:57
Editor 4	25	d7_colonrectal.jpg	Online:images:d_e_f:d_Digestive	1/23/06 2:58
Editor 4	26	r7_fecalincontinence.jpg	Online:images:p_q_r:r_Diseases	1/23/06 2:58
Editor 4	27	NeckPain2.eps	Print:Newsletters:Health_Letter:2000:03	1/25/06 1:27
Editor 4	28	Sacroilliac.eps	Print:Newsletters:Health_Letter:05:01	2/3/06 3:00
Editor 4	29	HB33-25ai.eps	Print:Books: Family_Health_Book	2/9/06 5:32
Editor 4	30	r7_autosomalrecessive.jpg	Online:images:p_q_r:r_Diseases	2/16/06 3:33
Editor 4	31	r7_spinalanatomy.jpg	Online:images:p_q_r:r_Diseases	2/21/06 1:17
Editor 4	32	ga7_colonrectum.jpg	Online:images:g_h_i:ga_General_Health	2/21/06 1:55
Editor 4	33	d22_rectum.jpg	Online:images:d_e_f:d_Digestive	2/21/06 3:56
Editor 4	34	ans7_lichennitidus.jpg	Online:images:a-z:ans_Ask_a_Specialist	3/1/06 9:14
Editor 4	35	r7_sacroiliacjoint.jpg	Online:images:p_q_r:r_Diseases	3/14/06 8:16
Editor 4	36	ans7_sacraldimple.jpg	Online:images:a-z:ans_Ask_a_Specialist	4/13/06 9:59
Editor 4	37	HL119909.eps	Print:Newsletters:Health_Letter:1999	4/21/06 1:46
Editor 4	38	cpap1.eps	Print:Newsletters:Health_Letter: Sleep	4/21/06 3:37
Editor 4	39	dn11_seasonalaffective.jpg	Online:images:d_e_f:dn_Depression	6/22/06 1:05
Editor 4	40	ans7_acousticneuroma.jpg	Online:images:a-z:ans_Ask_a_Specialist	7/21/06 4:13
Editor 4	41	r7_endocrinesystem.jpg	Online:images:p_q_r:r_Diseases	9/13/06 5:27
Editor 4	42	r7_nickelallergy.jpg	Online:images:p_q_r:r_Diseases	9/25/06 1:44
Editor 4	43	r7_fertilization.jpg	Online:images:p_q_r:r_Diseases	10/7/06 1:45
Editor 4	44	r6_tempchart.gif	Online:images:p_q_r:r_Diseases	10/3/06 1:49
Editor 4	45	C2_fig4.eps	Print:Books:Vision_and_Eye_Health	10/3/06 2:56
Editor 4	46	arth7_costochondritis.jpg	Online:images:a_b_c:arth_Arthritis	10/3/06 9:35
Editor 4	47	ans7_facial_nerve.jpg	Online:images:a-z:ans_Ask_a_Specialist	11/2/06 1:11
Editor 4	48	r7_lymphnodespair.jpg	Online:images:p_q_r:r_Diseases	11/7/06 1:22
Editor 4	49	HL079614.eps	Print:Newsletters:Health_Letter	11/9/06 1:48
Editor 4	50	HB30-AH6A947wb.tif	Print:Books:Family_Health_Book_915-946	12/1/06 4:57
Editor 4	51	AH6A432_big.jpg	Online:non-convention:all	12/5/06 1:38
Editor 4	52	bn22_cerestem.jpg	Online:images:a_b_c:bn_Nervous_System	12/9/06 1:08
Editor 4	53	squam.jpg	Online:non-convention:all	1/5/07 9:12
Editor 4	54	r7_cystoscopy.jpg	Online:images:p_q_r:r_Diseases	1/5/07 13:30
Editor 4	55	IntrnlStrctrsR2.eps	Print:books:Alzheimers_Disease	1/8/07 9:31
Editor 4	56	r7_cerebellum.jpg	Online:images:p_q_r:r_Diseases	1/8/07 10:19
Editor 4	57	ans7_biliary_system.jpg	Online:images:a-z:ans_Ask_a_Specialist	1/8/07 14:06
Editor 4	58	hb1_heartekg.jpg	Online:images:g_h_i:hc_Housecall:1_images	1/18/07 1:33
Editor 4	59	HB5G175.BMP	Multimedia:Family_Health_Book-CD-ROM	1/19/07 4:41

(continues)

	Reuse Number	Filename	File Path	Date Time
Editor 4	60	AH6A042.TIF	Multimedia:American_Health_Network-TV	2/12/07 1:33
Editor 4	61	AH6A098_big.jpg	Online:non-convention:all	2/12/07 1:52
Editor 4	62	fsm7_foottalus.jpg	Online:images:d_e_f:fsm_Fitness	2/12/07 1:57
Editor 4	63	HBIV-30.tif	Print:Books:Family_Health_Book_341-400	2/12/07 2:56
Editor 4	64	as7_spirom.jpg	Online:images:a_b_c:as_Asthma	2/13/07 1:24
Editor 4	65	r7_ribcage.jpg	Online:images:p_q_r:r_Diseases	2/16/07 8:30
Editor 4	66	id11_stds.jpg	Online:images:g_h_i:id_Infectious_Disease	2/20/07 9:36
Editor 4	67	r7_spinalanatomy.jpg	Online:images:p_q_r	1/15/08 9:17
Editor 4	68	pn7_facetjoint.jpg	Online:images:p_q_r:pn_Pain_Management	1/16/08 8:44
Editor 4	69	r7_sacroiliacjoint.jpg	Online:images:p_q_r:r_Diseases	1/16/08 8:44
Editor 4	70	testicular.gif	Online:non-convention:all	1/18/08 5:14
Editor 4	71	r7_maleurinary.jpg	Online:images:p_q_r:r_Diseases	1/30/08 8:56
Editor 4	72	bowel.eps	Print:newsletters:Health_Letter:2008	4/14/08 1:11
Editor 4	73	Tumor.eps	Print:Newsletters:Health_Letter:1999	5/20/08 4:12
Editor 4	74	bn7_tumordraw.jpg	Online:images:a_b_c:bn_Nervous_System	5/20/08 4:14
Editor 4	75	bn11_wavybrain.jpg	Online:images:a_b_c:billboard_images_11s	5/20/08 4:16
Editor 4	76	bn7_lobes.jpg	Online:images:a_b_c:bn_Nervous_System	5/20/08 4:17

Appendix D: Reuse of Medical Images by Assistants: 2002 to 2009

	Reuse Number	Filename	File Path	Date Time
Assistant 1	1	01_normalporous.tif	Print:Books:Fitness_for_EveryBody	2/24/06 1:21
Assistant 1	1	01_normalporous.tif	Print:Books:Fitness_for_EveryBody	2/24/06 1:21
Assistant 1	2	HB07-AVHWE030MH.tif	Print:Books:Family_Health_Book	6/5/06 4:39
Assistant 1	3	SS10019.eps	Print:books:The_Plan_10_Steps	8/24/06 9:25
Assistant 1	4	Chap2_Eye.tif	Print:books:Diabetes: 21-38	8/24/06 4:18
Assistant 2	1	Uterus2.tif	Not available	2/12/02 9:52
Assistant 2	2	hysterectomy.eps	Not available	3/7/02 12:35
Assistant 2	3	abuse.eps	Not available	2/12/02 9:52
Assistant 2	4	Lupus.eps	Not available	3/7/02 12:35
Assistant 2	5	shingles.eps	Not available	5/21/02 1:24
Assistant 2	6	UTI.eps	Not available	5/29/02 1:24
Assistant 2	7	gingivitis.eps	Not available	6/18/02 1:14
Assistant 2	8	ganglioncyst.eps	Not available	6/24/02 1:07
Assistant 2	9	FOOTCANC.tif	Not available	7/22/02 5:28
Assistant 2	10	goiter.eps	Not available	7/23/02 4:25
Assistant 2	11	tumorfinal.eps	Not available	7/29/02 4:52
Assistant 2	12	BCCa.tif	Not available	7/29/02 6:36
Assistant 2	13	heartburn.eps	Not available	9/5/02 9:32
Assistant 2	14	Vission2.eps	Not available	9/19/02 1:58
Assistant 2	15	CALFSTRC.tif	Not available	9/25/02 1:16
Assistant 2	16	highbloodpressure.eps	Not available	9/6/02 14:27
Assistant 2	17	footcancer_grey.tif	Not available	10/1/02 8:16
Assistant 2	18	UKA1.eps	Not available	10/2/02 1:25
Assistant 2	19	RecumHiRz.eps	Not available	10/4/02 1:10
Assistant 2	20	VentricularFibril.eps	Not available	10/5/02 1:43
Assistant 2	21	irrbowel.tif	Not available	10/9/02 8:24
Assistant 2	22	SyndromeX.eps	Not available	10/3/02 3:44
Assistant 2	23	aneurysm.eps	Not available	11/5/02 2:37
Assistant 2	24	carpal.eps	Not available	11/2/02 1:51
Assistant 2	25	cognitivecontinum.eps	Not available	11/2/02 9:15
Assistant 2	26	C2_coronalmri.eps	Not available	11/2/02 1:28
Assistant 2	27	CH11KNEE.eps	Not available	11/6/02 1:32
Assistant 2	28	Cavity.tif	Not available	12/9/02 1:02
Assistant 2	29	otosclerosis.eps	Not available	12/8/02 1:31
Assistant 2	30	hand.eps	Not available	1/6/03 11:49
Assistant 2	31	Arteries.tif	Multimedia:Books:Guide_to_Cancers	10/9/04 9:42
Assistant 2	32	WC1.eps	Multimedia:Books:Guide_to_Cancers	2/18/05 1:54
Assistant 2	33	agespots.eps	Multimedia:Newsletters:HealthSource:2002	2/18/05 1:54
Assistant 2	34	ISBN1-893005-35-6.eps	Multimedia:Books:Headache:Images	3/11/05 9:45
Assistant 3	1	ear.tif	Not available	1/10/02 8:12
Assistant 3	2	MelSkinC.tif	Not available	1/28/02 1:51
Assistant 3	3	headache.eps	Not available	1/31/02 1:26
Assistant 3	4	Ear1.tif	Not available	4/30/02 1:42
Assistant 3	5	fig11a.eps	Not available	6/14/02 1:53
Assistant 3	6	SonCv724.tif	Not available	8/16/02 1:20
Assistant 3	7	PG3OPTIO.tif	Not available	9/4/02 9:09
Assistant 3	8	2GalsRst.eps	Not available	10/1/02 1:56
Assistant 3	9	Arteries.tif	Not available	11/1/02 1:45
Assistant 3	10	scalevr2.tif	Not available	1/7/03 11:16
Assistant 4	1	seed_implant.tif	Multimedia:WM-Z	7/6/04 2:04
Assistant 4	2	ww5rl55.jpg	Multimedia:WM-Z	7/9/04 12:15
Assistant 4	3	ww5rm76.jpg	Multimedia:WM-Z	7/13/04 1:32
Assistant 4	4	ww5rm76t.jpg	Multimedia:Books:Vision_and_Eye_Health	7/13/04 1:33
Assistant 4	5	C3_fig7.eps	Multimedia:Books:Vision_and_Eye_Health	9/13/04 4:01
Assistant 4	6	C4_fig8a.eps	Multimedia:AN-AR	9/13/04 4:01
Assistant 4	7	ans7_renal_aneurysmthu.jpg	Multimedia:A-GAM	10/5/04 4:09
Assistant 4	8	aa1_mdinhaler.jpg	Multimedia:H-J	12/2/04 9:22
Assistant 4	9	hdg7_fibroidincision.jpg	Multimedia:Images:Newsletters:Health	12/8/04 2:10

(continues)

	Reuse Number	Filename	File Path	Date Time
Assistant 4	10	fl22_introtemp.jpg	Multimedia:D-FN	2/1/054 1:00
Assistant 4	11	fsm7_walker.jpg	Multimedia:FO-G	2/8/05 1:59:
Assistant 4	12	arth7_shoulder.jpg	Multimedia:AN-AR	3/18/05 1:54
Assistant 5	1	StresRev.tif	Print:Premiums:Healthful_Solutions	1/31/05 1:34
Assistant 5	2	fhb_3d_blk.eps	Print:Premiums:Staying_Mentally_Sharp	3/24/05 2:04
Assistant 5	3	StresRevChart.tif	Print:Premiums:Healthful_Solutions	3/24/05 2:10
Assistant 5	4	achilles.eps	Print:Newsletters:Health	3/24/05 2:38
Assistant 5	5	Stress.eps	Print:books:Healthy_Aging	4/4/05 2:33
Assistant 5	6	1191270_06jay.tif	Print:Special_projects:Path_to_Smoke-Free	5/19/06 1:32
Assistant 5	7	Buprn_14-15.tif	Print:premiums:Your_Guide_to_Vitamin	6/20/06 1:03
Assistant 5	8	DIETARYC2.tif	Print:newsletters:HealthSource:Weight	12/8/06 1:10
Assistant 5	9	GalWalkRd4.tif	Print:premiums:Walk_Your_Way	1/16/07 1:02
Assistant 5	10	CalfStrch.tif	Print:premiums:Heart-Healthy_Eating	1/22/07 1:15
Assistant 5	11	Arteries.tif	Print:premiums: Osteoporosis_Exercise	2/2/07 16:21
Assistant 5	12	14b.eps	Print:premiums:Healthy_Solutions	3/3/08 1637
Assistant 5	13	C8_fig6a.tif	Print:premiums:Heart-Healthy_Eating	10/8/08 1:28
Assistant 6	1	AnorectalProblems.eps	Multimedia:Newsletters:Health	6/16/04 1:42
Assistant 6	2	LeadPoisonIdent.eps	Multimedia:Newsletters:Health:04:Images	7/7/04 8:50
Assistant 6	3	Denguemap.eps	Multimedia:Newsletters:Health:04:Images	7/8/04 12:02
Assistant 6	4	fibro.eps	Multimedia:Newsletters:Health:Surgery	7/28/04 8:14
Assistant 6	5	LaparoscopicSurgery.eps	Multimedia:Books:Headache:Images	8/31/04 1:37
Assistant 6	6	HematomaArt2.eps	Multimedia:Newsletters:Health:04:Images	9/13/04 9:56
Assistant 6	7	stetho.tif	Multimedia:Newsletters:Health:04:Images	9/15/04 1:35
Assistant 6	8	livertransplant.eps	Multimedia:Books:Hearing:Layered_Hearing	9/21/04 2:57
Assistant 6	9	01_middleearAI.eps	Multimedia:Books:Arthritis	9/27/04 3:17
Assistant 6	10	HandJoint.tif	Multimedia:Books:Healthy_Weight	9/27/04 3:23
Assistant 6	11	olderfatteroutlines.eps	Multimedia:Books:High_Blood_Pressure	9/27/04 3:28
Assistant 6	12	aortic_aneurysm.tif	Multimedia:Books:Healthy_Aging	9/27/04 3:32
Assistant 6	13	TRICEPSE.TIF	Multimedia:Newsletters:Health:04:Images	9/29/04 1:34
Assistant 6	14	anxiety.eps	Multimedia:Newsletters:Health:04:Images	10/5/04 1:59
Assistant 6	15	spondylitis.eps	Multimedia:Newsletters:Health:04:Images	10/1/04 1:28
Assistant 6	16	actinicKeratosis.eps	Multimedia:Books:Guide_to_Cancers	10/1/04 1:28
Assistant 6	17	267_stage4a.eps	Multimedia:Newsletters:Health:Organ	11/8/04 2:54
Assistant 6	18	livertransplant.eps	Multimedia:Books:Guide_to_Cancers	11/9/04 8:15
Assistant 6	19	MCWC01_PG012.jpg	Multimedia:Newsletters:Health:04	11/6/04 8:17
Assistant 6	20	Veneers.eps	Multimedia:Newsletters:Health:04	11/8/04 1:55
Assistant 6	21	stress.eps	Multimedia:Newsletters:Health:Arthritis	12/1/04 1:46
Assistant 6	22	arthritisA.eps	MultimediaPremiums:Head_to_Toe	12/2/04 3:20
Assistant 6	23	Diverticulitis.eps	Multimedia:Newsletters:Health_Letter	1/12/05 2:09
Assistant 6	24	pelvic3.eps	Multimedia:Newsletters:Health_Letter	1/12/05 2:20
Assistant 6	25	DepressionImages.eps	Multimedia:Newsletters:Health_Letter	2/9/05 2:34
Assistant 7	1	mconalzheimers.eps	MultimediaPremiums:50_Head_to_Toe	9/1/04 2:58
Assistant 7	2	canalithrepositioningAI.eps	Multimedia:Books:Hearing:Layered_Hearing	11/1/04 2:02
Assistant 7	3	pr6_bcpatch.JPG	Multimedia:O-P	11/1/04 1:10
Assistant 7	4	nicotine.eps	Multimedia:Newsletters:Health	11/1/04 2:10
Assistant 7	5	fsm7_blepharo.jpg	Multimedia:FO-G	11/1/04 1:38
Assistant 7	6	blepharoplasty1.EPS	Multimedia:Newsletters:Health:2000:Images	11/1/04 2:38
Assistant 7	7	eyecopy.eps	Multimedia:Newsletters:2001:Images	11/1/04 2:38
Assistant 7	8	after.eps	Multimedia:Newsletters:1999:Images	11/1/04 2:40
Assistant 7	9	during.eps	Multimedia:Newsletters:1999:Images	11/1/04 2:40
Assistant 7	10	SMASprocedure.eps	Multimedia:Newsletters:1999:Images	11/1/04 2:40
Assistant 7	11	AllinEar.tif	Print:Premiums:10_Tips_for_Better_Hearing	3/7/05 3:42
Assistant 7	12	pg1.eps	Print:Premiums:Your_Healthy_Back	3/7/05 4:13
Assistant 8	1	1201.tif	Not available	3/6/02 16:05
Assistant 8	2	CH09IMPL.eps	Not available	4/11/02 9:00
Assistant 8	3	C6_notdepressed.eps	Not available	4/11/02 9:28
Assistant 8	4	LOWERBAC.tif	Not available	4/11/02 1:02
Assistant 8	5	HEARTCFL.eps	Not available	4/11/02 1:16
Assistant 8	6	fig23b.eps	Not available	4/12/02 5:52
Assistant 8	7	DHCH0101.tif	Not available	4/16/02 4:28

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	Reuse Number	Filename	File Path	Date Time
Assistant 8	8	HeelRaiseGal.eps	Not available	4/19/02 4:00
Assistant 8	9	ArtP5.tif	Not available	4/19/02 4:11
Assistant 8	10	2GalsRst.eps	Not available	4/19/02 4:21
Assistant 8	11	0100396.eps	Not available	4/19/02 4:29
Assistant 8	12	MelSknCU.tif	Not available	4/19/02 5:00
Assistant 8	13	Ear1.tif	Not available	4/19/02 5:15
Assistant 8	14	pg74.eps	Not available	4/19/02 5:15
Assistant 8	15	Diabetes.tif	Not available	4/19/02 6:08
Assistant 8	16	Arteries.tif	Not available	4/22/02 9:19
Assistant 8	17	CHIRO.tif	Not available	4/22/02 1:39
Assistant 8	18	tmslce51.tif	Not available	4/22/02 1:18
Assistant 8	19	CP11-01.eps	Not available	5/22/02 9:59
Assistant 8	20	ArthritisRICH 2.eps	Not available	6/5/02 13:57
Assistant 8	21	HBIL2301.tif	Not available	9/17/02 5:38
Assistant 8	22	HBIL2323.tif	Not available	9/18/02 3:54
Assistant 8	23	HB5G027.EPS	Not available	10/3/02 5:53
Assistant 8	24	11.tif	Not available	10/5/02 9:17
Assistant 8	25	HBP107.tif	Not available	10/5/02 6:45
Assistant 8	26	HBIV-3.tif	Multimedia:Books:Family_Health_Book	6/10/04 2:01
Assistant 8	27	fig11a.eps	Print:Books: Vision_and_Eye_Health	8/29/06 4:06
Assistant 8	28	ShinglesNew.tif	Print:Books: Chronic_Pain:113-28	10/3/06 8:18
Assistant 8	29	C4_fig10.eps	Print:Books: Vision_and_Eye_Health	12/8/06 2:49
Assistant 8	30	hbp_retina.tif	Print:Books: High_Blood_Pressure	2/13/07 3:52
Assistant 8	31	09_TDD.eps	Print:Books:Hearing:Chapter_09	2/27/08 4:42
Assistant 8	32	Chap1-pg5A.tif	Print:books:Diabetes:chapters:Chapter_01	6/10/08 8:14
Assistant 8	33	asain.eps	Print:Books:Family_Health_Book:Chapter_02	7/30/08 5:51
Assistant 8	34	CH2_7_ansler2.eps	Print:books:Guide_to_Better_Vision:Chapter	2/18/09 2:59
Assistant 9	1	45.tif	Not available	10/7/02 1:09
Assistant 9	2	r7_autosomalrecessive.jpg	Multimedia:backup:Q-R	6/30/04 4:32
Assistant 9	3	fig91.eps	Multimedia:Images:Books:Vision	7/9/04 2:09
Assistant 9	4	fig92.eps	Multimedia:Images:Books:Vision	7/12/04 4:44
Assistant 9	5	C3_fig7.eps	Multimedia:Books:Vision_and_Eye_Health	9/1/04 9:35
Assistant 9	6	ans7_doubleaorticarch.jpg	Multimedia:AN-AR	10/1/04 2:22
Assistant 9	7	Infalmmatorybcancer.tif	Multimedia:Books:Guide_to_Cancers	10/9/04 2:30
Assistant 9	8	ans7_metopicsuture.jpg	Multimedia:AN-AR	11/1/04 9:30
Assistant 9	9	w7_nipplechanges.jpg	Multimedia:S-WL	1/3/05 2:05
Assistant 9	10	ans7_tipped_uterus.jpg	Multimedia:AN-AR	2/7/05 12:05
Assistant 9	11	ans7_no_charcot_jointthu.jpg	Multimedia:AN-AR	4/4/05 10:08
Assistant 9	12	ans7_charcot_joint.jpg	Multimedia:AN-AR	4/4/05 1:58
Assistant 10	1	fainting.eps	Not available	2/20/02 1:15
Assistant 10	2	CH09Suppository.eps	Not available	2/20/02 1:25
Assistant 11	1	kneesreversed.tif	Multimedia:Images:Newsletters:Health:2000	6/10/04 1:45
Assistant 11	2	CH04applepear.tif	Multimedia:Books:Healthy_Weight	8/24/04 2:10
Assistant 11	3	olderfatteroutlines.eps	Multimedia:Books:High_Blood_Pressure	8/24/04 2:10
Assistant 11	4	CH0401_New.tif	Multimedia:Books:Family_Health_Book	8/24/04 2:10
Assistant 11	5	HB03-03.eps	Multimedia:Books:Healthy_Weight	9/7/04 10:45
Assistant 11	6	CH134.tif	Multimedia:Books:Healthy_Weight	9/16/04 1:14
Assistant 11	7	NEWpg16.tif	Multimedia:Books:Healthy_Weight	9/22/04 2:48
Assistant 11	8	NEWpg12.tif	Multimedia:Books:Healthy_Weight	9/22/04 3:19
Assistant 11	9	C23Sprd2.tif	Multimedia:K-N	9/28/04 1:22
Assistant 11	10	MM00461_IBS.jpg	Multimedia:Newsletters:Health:1999:Images	10/7/04 1:37
Assistant 11	11	irrbowel.eps	Multimedia:Newsletters:Health:2001:Images	10/7/04 1:37
Assistant 11	12	inflamatory2PS.eps	Multimedia:Newsletters:2003:Images	10/7/04 1:37
Assistant 11	13	IBowel.eps	Multimedia:Books:Family_Health_Book	10/7/04 1:37
Assistant 11	14	HB04-6shoe.eps	Family_Health_Book_CD_ROM	11/6/04 8:58
Assistant 11	15	HB5G278.BMP	Multimedia:Newsletters:Health:1997:Images	12/2/04 2:10
Assistant 11	16	HL019802.eps	Multimedia:Newsletters:Health:1998:Images	12/8/04 2:10
Assistant 11	17	incont.eps	Multimedia:Newsletters:Health:1999:Images	12/8/04 2:10
Assistant 11	18	UTI.eps	Multimedia:Newsletters:Health:2001:Images	12/8/04 2:10
Assistant 11	19	urinary.eps	Multimedia:Newsletters:Health:2002:Images	12/8/04 2:10

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	Reuse Number	Filename	File Path	Date Time
Assistant 11	20	PelvicPath.eps	Multimedia:Newsletters:Health:04:Images	12/8/04 2:10
Assistant 11	21	AnorectalProblems.eps	Multimedia:Newsletters:2002:Images	12/8/04 2:10
Assistant 11	22	UTI.eps	Multimedia:Newsletters:04:Images	12/8/04 2:10
Assistant 11	23	bladInervation.eps	Archive:Family_Health_Book_CD_ROM	12/8/04 2:10
Assistant 11	24	HB5G278.BMP	Multimedia:Newsletters:Health:1997:Images	12/8/04 2:10
Assistant 11	25	HL019802.eps	Multimedia:Newsletters:Health:1998:Images	12/8/04 2:10
Assistant 11	26	incont.eps	Multimedia:Newsletters:Health:1999:Images	12/8/04 2:10
Assistant 11	27	UTI.eps	Multimedia:Newsletters:Health:2001:Images	12/8/04 2:10
Assistant 11	28	urinary.eps	Multimedia:Newsletters:Health:2002:Images	12/8/04 2:10
Assistant 11	29	PelvicPath.eps	Multimedia:Newsletters:Health:04:Images	12/8/04 2:10
Assistant 11	30	AnorectalProblems.eps	Multimedia:Newsletters:2002:Images	12/8/04 2:10
Assistant 11	31	UTI.eps	Multimedia:Newsletters:04:Images	12/8/04 2:10
Assistant 11	32	bladInervation.eps	Multimedia:Newsletters:Health:1999:Images	12/8/04 2:10
Assistant 11	33	UTI.eps	Multimedia:Newsletters: Health:2002:Images	12/8/04 2:10
Assistant 11	34	UTI.eps	Multimedia:AN-AR	12/8/04 2:10
Assistant 11	35	prostate_xsectionBW.tif	Multimedia:Books:Prostate_Health	1/9/05 10:32
Assistant 11	36	colonpolyp2.tif	Multimedia:Books:Digestive_Health	1/20/05 8:34
Assistant 11	37	ch3.tif	Multimedia:Books:Digestive_Health	1/21/05 1:18
Assistant 11	38	seed_implant.tif	Multimedia:Books:Prostate_Health	1/24/05 8:23
Assistant 11	39	CH4.eps	Multimedia:Books:Prostate_Health	1/25/05 8:49
Assistant 11	40	CH05BPH.eps	Multimedia:Books:Prostate_Health	1/28/05 8:27
Assistant 11	41	C3_mania_sm.eps	Print:Books:Depression:Color_section	1/3/06 1:35
Assistant 11	42	DegenerativeChanges.eps	Print:newsletters:Health_Letter:Back_Care	1/6/06 1:38
Assistant 11	43	01_normalporous.tif	Print:Books:Fitness_for_EveryBody	1/17/06 1:43
Assistant 11	44	14151.tif	Print:Books:Healthy_Weight_for_EveryBody	1/17/06 1:29
Assistant 11	45	22524ALSRGB75_4.eps	Print:books:The_Plan_10_Steps	2/7/06 11:35
Assistant 11	46	opsteo.eps	Print:Newsletters:HealthSource:Joint_Health	2/10/06 1:13
Assistant 11	47	Arch_Back.eps	Print:books:Guide_to_a_Healthy_Pregnancy	2/28/06 1:34
Assistant 11	48	PrcvExrSclRv.tif	Print:books:Managing_Diabetes	3/14/06 4:46
Assistant 11	49	Cavity.tif	Print:Books:Guide_to_Self-Care	3/14/06 4:55
Assistant 11	50	02_glands.eps	Print:Books:Osteoporosis	3/20/06 9:30
Assistant 11	51	HB37-brainnerves.tif	Print:Books:Family_Health_Book	4/17/06 1:58
Assistant 11	52	kidneychart2.eps	Print:newsletters:Health_Letter	5/4/06 8:25
Assistant 11	53	OS48062_A.tif	Print:books:The_Plan_10_Steps	6/7/06 4:20
Assistant 11	54	coronal_male.eps	Print:Books:Headache:Color_section	6/7/06 1:06
Assistant 11	55	HematomaArt2.eps	Print:newsletters:Health_Letter:2006	7/7/06 9:51
Assistant 11	56	121828-005-0.tif	Print:Books:Heart_Book:Color_section	8/4/06 1:26
Assistant 11	57	LEFTTOOTH.TIF	Print:books:Healthy_Aging:Chapter_02	8/9/06 11:45
Assistant 11	58	multifidus.tif	Print:books:Plan_for_Healthy_Aging	8/9/06 11:53
Assistant 11	59	kidneytransplant.tif	Print:books:Diabetes:1_published_files_c2006	8/9/06 2:19
Assistant 11	60	BurnscoverB.eps	Print:Newsletters:Health_Letter:2003:05	8/11/06 1:22
Assistant 11	61	HL089609.eps	Print:Newsletters:Health_Letter:1996:08	8/11/06 1:23
Assistant 11	62	Rule9B.eps	Print:Newsletters:Health_Letter:2003:05	8/11/06 1:23
Assistant 11	63	heimlich1.eps	Print:Newsletters:Health_Letter:1999:09	8/11/06 1:24
Assistant 11	64	arteryinflamation.eps	Print:Newsletters:HealthSource:05:04	8/11/06 1:29
Assistant 11	65	Claudication.eps	Print:Newsletters:HealthSource:1997-04	8/11/06 1:15
Assistant 11	66	HBP.eps	Print:Newsletters:HealthSource:2003:04	8/11/06 1:19
Assistant 11	67	ArteritisA.eps	Print:Newsletters:Health_Letter:1998:04	8/11/06 1:22
Assistant 11	68	varicoseveins1.eps	Print:Newsletters:Health_Letter:1998:05	8/11/06 1:23
Assistant 11	69	myeloB.eps	Print:Newsletters:Health_Letter:2001:03	8/11/06 1:25
Assistant 11	70	carotid.eps	Print:Newsletters:Health_Letter:2000:12	8/11/06 1:25
Assistant 11	71	arythmyia.eps	Print:Newsletters:Health_Letter:2001:03	8/11/06 1:27
Assistant 11	72	heartI.eps	Print:Newsletters:Health_Letter:2000:09	8/11/06 1:28
Assistant 11	73	Hearts.eps	Print:Newsletters:Health_Letter:2001:12	8/11/06 1:30
Assistant 11	74	heartattack.eps	Print:Newsletters:Health_Letter:1998:09	8/11/06 1:31
Assistant 11	75	Aneurysm.eps	Print:Newsletters:Health_Letter:1999:03	8/11/06 1:32
Assistant 11	76	Ischemia.eps	Print:Newsletters:Health_Letter:2002:04	8/11/06 1:34
Assistant 11	77	stent1.eps	Print:Newsletters:Health_Letter:2002:12	8/11/06 1:36
Assistant 11	78	coronary.eps	Print:Newsletters:Health_Letter:Coronary	8/11/06 1:58
Assistant 11	79	aneurysm.eps	Print:Newsletters:Health_Letter:Stroke	8/11/06 2:00

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	Reuse Number	Filename	File Path	Date Time
Assistant 11	80	PostSurg.eps	Print:Newsletters:Health_Letter:2001:06	8/11/06 3:16
Assistant 11	81	OXYGENX.eps	Print:Newsletters:Health_Letter:Pulmonary	8/11/06 3:17
Assistant 11	82	hypertension.eps	Print:Newsletters:Health_Letter:2002:01	8/11/06 3:19
Assistant 11	83	asthma.eps	Print:Newsletters:Health_Letter:2002:07	8/11/06 3:19
Assistant 11	84	Pleurisy.eps	Print:Newsletters:Health_Letter:2003:05	8/11/06 3:20
Assistant 11	85	Dia2ndED.jpg	Print:Books:Managing_Diabetes	8/18/06 8:08
Assistant 11	86	tear4.eps	Print:Newsletters:Health_Letter:2002:10	8/18/06 4:11
Assistant 11	87	conjunctivitisA.eps	Print:Newsletters:Health_Letter:1998:09	8/18/06 1:13
Assistant 11	88	colles.eps	Print:Newsletters:Health_Letter:2001:07	8/18/06 4:13
Assistant 11	89	sprains3.eps	Print:Newsletters:Health_Letter:2000:09	8/18/06 4:16
Assistant 11	90	Healing.eps	Print:Newsletters:Health_Letter:2002:02	8/18/06 4:17
Assistant 11	91	Fixater.eps	Print:Newsletters:Health_Letter:2002:02	8/18/06 4:18
Assistant 11	92	NeckPain2.eps	Print:Newsletters:Health_Letter:2000:03	8/18/06 4:18
Assistant 11	93	hipfractures.eps	Print:Newsletters:Health_Letter:1998:05	8/18/06 4:20
Assistant 11	94	Angiogenesis2.eps	Print:Newsletters:Health_Letter:2003:07	8/18/06 4:21
Assistant 11	95	Inflamation.eps	Print:Newsletters:HealthSource:05:04	8/18/06 4:23
Assistant 11	96	rehabart.eps	Print:Newsletters:HealthSource:05:05	8/18/06 4:29
Assistant 11	97	selfheimlichrd.eps	Print:Newsletters:HealthSource:1997-04	8/18/06 1:35
Assistant 11	98	40179.jpg	Print:Newsletters:HealthSource:Aging_Eyes	8/21/06 8:13
Assistant 11	99	angiodema.eps	Print:Newsletters:HealthSource:Allergies	8/21/06 8:13
Assistant 11	100	ret_tear.tif	Print:Newsletters:HealthSource:Aging_Eyes	8/21/06 1:07
Assistant 11	101	WPW.eps	Print:Newsletters:Health_Letter:Heart	8/25/06 8:53
Assistant 11	102	Ulcers.eps	Print:Newsletters:Health_Letter:2001:02	8/25/06 8:55
Assistant 11	103	Raynauds.EPS	Print:Newsletters:Health_Letter:1999:02	8/25/06 8:57
Assistant 11	104	EmbolismB.eps	Print:Newsletters:Health_Letter:04:01	8/25/06 9:05
Assistant 11	105	E899422-073.tif	Print:Books:Heart_Book:Part_5	8/25/06 9:12
Assistant 11	106	HB20-11.tif	Print:Books:Family_Health_Book:Part_IV	8/29/06 9:57
Assistant 11	107	MaleHandB.eps	Print:Newsletters:Health_Letter:2001:12	8/29/06 3:37
Assistant 11	108	hernia.eps	Print:Newsletters:Health_Letter:2001:02	8/29/06 3:37
Assistant 11	109	heartburn.eps	Print:Newsletters:Health_Letter:2000:08	8/29/06 3:38
Assistant 11	110	spleen.eps	Print:Newsletters:Health_Letter:2002:01	8/29/06 3:39
Assistant 11	111	bladder.eps	Print:Newsletters:Health_Letter:2003:10	8/29/06 3:40
Assistant 11	112	pancr.eps	Print:Newsletters:Health_Letter:1999:10	8/29/06 3:40
Assistant 11	113	Polyps.eps	Print:Newsletters:Health_Letter:2003:11	8/29/06 3:41
Assistant 11	114	irrbowel.eps	Print:Newsletters:Health_Letter:1999:02	8/29/06 3:42
Assistant 11	115	gallbladder.eps	Print:Newsletters:Health_Letter:1999:03	8/29/06 3:44
Assistant 11	116	Liver.eps	Print:Newsletters:Health_Letter:2000:05	8/29/06 3:45
Assistant 11	117	shoulder.eps	Print:Newsletters:Health_Letter:04:06	8/29/06 3:47
Assistant 11	118	UTI.eps	Print:Newsletters:Health_Letter:1999:06	8/29/06 3:49
Assistant 11	119	Barrett.eps	Print:Newsletters:Health_Letter:2003:07	8/29/06 3:50
Assistant 11	120	Metsfinal.eps	Print:Newsletters:Health_Letter:1999:08	8/29/06 3:51
Assistant 11	121	appendicitisC.eps	Print:Newsletters:Health_Letter:1999:09	8/29/06 3:53
Assistant 11	122	livertransplant.eps	Print:Newsletters:Health_Letter:Organ	8/29/06 4:00
Assistant 11	123	normalfattycirrotic.eps	Print:Newsletters:Health_Letter:Your_Liver	8/29/06 4:00
Assistant 11	123	celiac_disease.eps	Print:Newsletters:HealthSource:04:01	8/29/06 4:16
Assistant 11	125	rectum.eps	Print:Newsletters:HealthSource	8/29/06 4:18
Assistant 11	126	kidneyart.eps	Print:Newsletters:Health_Letter:2000:10	9/1/06 5:04
Assistant 11	127	HL029702.eps	Print:Newsletters:Health_Letter:1997:02	9/1/06 5:06
Assistant 11	128	ADRENTUM.EPS	Print:Newsletters:Health_Letter:2001:04	9/1/06 5:08
Assistant 11	129	urinary.eps	Print:Newsletters:Health_Letter:2001:07	9/1/06 5:09
Assistant 11	130	kidneytransplant.eps	Print:Newsletters:Health_Letter:Organ	9/1/06 5:16
Assistant 11	131	TURP.eps	Print:Newsletters:Health_Letter:Prostate	9/1/06 5:19
Assistant 11	132	bladInervation.eps	Print:Newsletters:HealthSource:1997-04	9/1/06 5:28
Assistant 11	133	adrenals.eps	Print:Newsletters:HealthSource:1997-04	9/1/06 5:33
Assistant 11	134	lymphomafigure.eps	Print:Newsletters:Health_Letter:2002:08	9/5/06 9:19
Assistant 11	135	AspirinClot.eps	Print:Newsletters:HealthSource:1997-04	9/5/06 9:22
Assistant 11	136	genes.eps	Print:Newsletters:HealthSource:05:03	9/5/06 9:23
Assistant 11	137	bone_marrow.eps	Print:newsletters:HealthSource:Blood	9/5/06 9:29
Assistant 11	138	goiter.eps	Print:Newsletters:Health_Letter:2002:08	9/5/06 9:36
Assistant 11	139	peripheral.eps	Print:Newsletters:Health_Letter:04:09	9/5/06 9:38

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	Reuse Number	Filename	File Path	Date Time
Assistant 11	140	ThyroidGland.eps	Print:newsletters:HealthSource:05:10	9/5/06 9:39
Assistant 11	141	SyndromeX.eps	Print:Newsletters:HealthSource:1997-04	9/5/06 9:52
Assistant 11	142	ThroidNodule.eps	Print:Newsletters:HealthSource:1997-04	9/5/06 9:53
Assistant 11	143	diabeticretinopathy.tif	Print:newsletters:HealthSource:2006:03	9/5/06 10:09
Assistant 11	144	ParathyroidsA.eps	Print:Newsletters:HealthSource:04:04	9/5/06 10:11
Assistant 11	145	inhalerb.eps	Print:Newsletters:HealthSource:2003:05	9/5/06 10:15
Assistant 11	146	metabolicsyndrome.eps	Print:Newsletters:HealthSource:05:07	9/5/06 11:41
Assistant 11	147	headache.eps	Print:newsletters:HealthSource:Chronic Pain	9/6/06 11:58
Assistant 11	148	HL039703.eps	Print:Newsletters:Health_Letter:1997:03	9/11/06 4:32
Assistant 11	149	PARKINSO.EPS	Print:Newsletters:Health_Letter:2001:05	9/11/06 4:34
Assistant 11	150	Thighs.eps	Print:Newsletters:Health_Letter:2000:08	9/11/06 4:35
Assistant 11	151	headaches3.eps	Print:Newsletters:Health_Letter:2001:09	9/11/06 4:38
Assistant 11	152	MSchartnolabels.eps	Print:Newsletters:Health_Letter:2003:01	9/11/06 4:40
Assistant 11	153	seizures.eps	Print:Newsletters:Health_Letter:2002:11	9/11/06 4:41
Assistant 11	154	HL129907.EPS	Print:Newsletters:Health_Letter:1999:12	9/11/06 4:45
Assistant 11	155	Tumor.eps	Print:Newsletters:Health_Letter:1999:02	9/11/06 4:48
Assistant 11	156	coverA.eps	Print:Newsletters:Health_Letter:Stroke	9/11/06 5:05
Assistant 11	157	CarpalTunnel.eps	Print:Newsletters:HealthSource:04:05	9/11/06 5:59
Assistant 11	158	hippocampus.eps	Print:Newsletters:HealthSource:1997-04	9/11/06 6:01
Assistant 11	159	neurowoman.eps	Print:newsletters:HealthSource:05:11	9/11/06 6:04
Assistant 11	160	Carotidarteryrev2.eps	Print:Newsletters:HealthSource:1997-04	9/11/06 6:09
Assistant 11	161	HEADACHE.eps	Print:Newsletters:HealthSource:1997:08	9/11/06 6:20
Assistant 11	162	laughter.eps	Print:newsletters:HealthSource:05:10	9/12/06 9:43
Assistant 11	163	synapseserotonin.eps	Print:Newsletters:HealthSource:Anxiety	9/12/06 9:57
Assistant 11	164	BPH.eps	Print:Newsletters:Health_Letter:2001:04	9/12/06 1:13
Assistant 11	165	ErectileFunction.eps	Print:Newsletters:Health_Letter:2003:10	9/12/06 1:16
Assistant 11	166	HL089707.eps	Print:Newsletters:Health_Letter:1997:08	9/12/06 1:18
Assistant 11	167	HLM30003.eps	Print:Newsletters:Health_Letter:Prostate	9/12/06 1:20
Assistant 11	168	hypertensiongraph.tif	Print:newsletters:HealthSource:Health	9/12/06 1:25
Assistant 11	169	uterus.eps	Print:Newsletters:Health_Letter:2003	9/12/06 1:29
Assistant 11	170	hysterectomy.eps	Print:Newsletters:Health_Letter:2002:03	9/12/06 1:30
Assistant 11	171	Menopaus.eps	Print:Newsletters:Health_Letter:Menopause	9/12/06 1:34
Assistant 11	172	17955928.eps	Print:Newsletters:HealthSource:Sexuality	9/12/06 1:39
Assistant 11	173	Papilloma.eps	Print:Newsletters:HealthSource:2003:03	9/13/06 8:52
Assistant 11	174	HotFlash.eps	Print:Newsletters:HealthSource:2003:04	9/13/06 8:53
Assistant 11	175	pap.eps	Print:Newsletters:HealthSource:2003:05	9/13/06 8:55
Assistant 11	176	Fibroid01.tif	Print:newsletters:HealthSource:2006:05	9/13/06 8:56
Assistant 11	177	OVARIAN.tif	Print:Newsletters:HealthSource:05:07	9/13/06 9:13
Assistant 11	178	selfexam.eps	Print:Newsletters:Health_Letter:Breast	9/13/06 3:58
Assistant 11	179	BreastLump.eps	Print:newsletters:HealthSource:05:10	9/13/06 3:59
Assistant 11	180	breastscans2.tif	Print:newsletters:HealthSource:2006:05	9/13/06 4:08
Assistant 11	181	mammogram.eps	Print:Newsletters:HealthSource:05:06	9/13/06 4:09
Assistant 11	182	EWE_029.eps	Print:books:The_Plan_10	9/15/06 1:05
Assistant 11	183	Urinarytractinfection.eps	Print:newsletters:Health_Letter:2006:10	9/22/06 1:12
Assistant 11	184	110067.eps	Print:newsletters:Health_Letter:2006:Pandemic	9/22/06 4:17
Assistant 11	185	abscesses.eps	Print:Newsletters:Health_Letter:2003:01	9/22/06 4:42
Assistant 11	186	monoclonal.eps	Print:Newsletters:Health_Letter:2003:03	9/22/06 4:46
Assistant 11	187	NucleicProbe.eps	Print:Newsletters:Health_Letter:Infectious	9/22/06 4:47
Assistant 11	188	earanatPS.eps	Print:Newsletters:Health_Letter:2001:10	9/22/06 5:15
Assistant 11	189	HL049610.eps	Print:Newsletters:Health_Letter:1996:04	9/22/06 5:18
Assistant 11	190	hearingcombined.EPS	Print:Newsletters:Health_Letter:1998:06	9/22/06 5:21
Assistant 11	191	Ear.eps	Print:Newsletters:Health_Letter:2000:07	9/22/06 5:24
Assistant 11	192	Otitis.eps	Print:Newsletters:Health_Letter:2000:08	9/22/06 5:30
Assistant 11	193	otosclerosis.eps	Print:Newsletters:Health_Letter:2003:01	9/22/06 5:35
Assistant 11	194	polyps.eps	Print:Newsletters:Health_Letter:2001:11	9/22/06 5:39
Assistant 11	195	hearingAid.jpg	Print:Newsletters:Health_Letter:2003:12	9/22/06 6:08
Assistant 11	196	deviatedseptum.eps	Print:Newsletters:Health_Letter:2000:04	9/22/06 6:09
Assistant 11	197	Snoring.eps	Print:Newsletters:HealthSource:1997-04	9/22/06 6:15
Assistant 11	198	BPPV1.eps	Print:Newsletters:HealthSource:05:02	9/22/06 6:16
Assistant 11	199	02_earstructure.tif	Print:newsletters:HealthSource:2006:04	9/22/06 6:19

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	Reuse Number	Filename	File Path	Date Time
Assistant 11	200	smell.eps	Print:Newsletters:HealthSource:2001:07	9/22/06 6:21
Assistant 11	201	PAGE87-23-9.eps	Print:Newsletters:HealthSource:1997:09	9/22/06 6:25
Assistant 11	202	retinopathyC.eps	Print:Newsletters:Health_Letter:2001:12	9/25/06 9:53
Assistant 11	203	OPTICISCH.EPS	Print:Newsletters:Health_Letter:2001:05	9/25/06 9:56
Assistant 11	204	blepharoplasty1.EPS	Print:Newsletters:Health_Letter:2000:09	9/25/06 9:56
Assistant 11	205	Floaters.eps	Print:Newsletters:Health_Letter:2002:10	9/25/06 1:05
Assistant 11	206	HL109703.eps	Print:Newsletters:Health_Letter:1997:10	9/25/06 1:07
Assistant 11	207	HL109911.EPS	Print:Newsletters:Health_Letter:1999:10	9/25/06 1:08
Assistant 11	208	HL119909.eps	Print:Newsletters:Health_Letter:1999:11	9/25/06 1:13
Assistant 11	209	Veneers.eps	Print:Newsletters:Health_Letter:1996-04	9/25/06 1:14
Assistant 11	210	colorblindness.tif	Print:Newsletters:Health_Letter:2002	9/25/06 1:17
Assistant 11	211	chancreadjusted.eps	Print:Newsletters:Health_Letter:1999:03	9/25/06 1:18
Assistant 11	212	cataract.eps	Print:Newsletters:Health_Letter:1998:08	9/25/06 1:31
Assistant 11	213	Rootcanalseries.eps	Print:Newsletters:Health_Letter:2003:09	9/25/06 1:32
Assistant 11	214	corneatransplant.eps	Print:Newsletters:Health_Letter:04:09	9/25/06 1:33
Assistant 11	215	gingivitis.eps	Print:Newsletters:Health_Letter:Teeth	9/25/06 3:50
Assistant 11	216	EyeDiseases.eps	Print:Newsletters:Health_Letter:Vision	9/25/06 3:54
Assistant 11	217	dentalcare.eps	Print:Newsletters:HealthSource:04:01	9/25/06 4:05
Assistant 11	218	DryEyesArt.eps	Print:newsletters:HealthSource:05:10	9/25/06 4:06
Assistant 11	219	gingivitis02.tif	Print:newsletters:HealthSource:2006:04	9/25/06 4:23
Assistant 11	220	Halitosis.eps	Print:Newsletters:HealthSource:04:05	9/25/06 4:36
Assistant 11	221	taste.eps	Print:Newsletters:HealthSource:2001:07	9/25/06 4:40
Assistant 11	222	anatomy.tif	Print:Newsletters:HealthSource:Aging_Eyes	9/25/06 4:43
Assistant 11	223	HL019703.eps	Print:Newsletters:Health_Letter:1997:01	9/25/06 6:05
Assistant 11	223	elbow.eps	Print:Newsletters:Health_Letter:2000:10	9/25/06 6:07
Assistant 11	225	HL129603.eps	Print:Newsletters:Health_Letter:1996:12	9/25/06 6:26
Assistant 11	226	hipprote.eps	Print:Newsletters:Health_Letter:2001:04	9/25/06 6:35
Assistant 11	227	Stenosis.eps	Print:Newsletters:Health_Letter:2001:06	9/25/06 6:38
Assistant 11	228	HL079614.eps	Print:Newsletters:Health_Letter:1996:07	9/25/06 6:41
Assistant 11	229	JOINTINF.eps	Print:Newsletters:Health_Letter:1996-04	9/25/06 6:43
Assistant 11	230	carpal.eps	Print:Newsletters:Health_Letter:2002:01	9/25/06 6:44
Assistant 11	231	Sacroilliac.eps	Print:Newsletters:Health_Letter:05:01	9/25/06 6:45
Assistant 11	232	spondylitis.eps	Print:Newsletters:Health_Letter:04:10	9/25/06 6:49
Assistant 11	233	Gout1.eps	Print:Newsletters:Health_Letter:2001:11	9/26/06 1:31
Assistant 11	234	OsteoRheum1B.eps	Print:Newsletters:Health_Letter:2003:12	9/26/06 1:31
Assistant 11	235	e1206603-001-0.eps	Print:newsletters:Health_Letter:05:12	9/26/06 1:07
Assistant 11	236	HL129904.EPS	Print:Newsletters:Health_Letter:1999:12	9/26/06 1:09
Assistant 11	237	rttrcff.eps	Print:Newsletters:Health_Letter:1998:02	9/26/06 1:18
Assistant 11	238	bunion.eps	Print:Newsletters:Health_Letter:2000:03	9/26/06 1:20
Assistant 11	239	height.eps	Print:Newsletters:Health_Letter:1999:03	9/26/06 1:23
Assistant 11	240	fallenarches.eps	Print:Newsletters:Health_Letter:2002:04	9/26/06 1:24
Assistant 11	241	hippain.eps	Print:Newsletters:Health_Letter:2000:05	9/26/06 1:29
Assistant 11	242	OTTOBOCK.tif	Print:Newsletters:Health_Letter:2002:05	9/26/06 1:30
Assistant 11	243	Pg3Proof.eps	Print:Newsletters:Health_Letter:1998:05	9/26/06 1:43
Assistant 11	244	BackSurgA.eps	Print:Newsletters:Health_Letter:2000:06	9/26/06 1:45
Assistant 11	245	ArthritisThumb3.eps	Print:newsletters:Health_Letter:2006:06	9/26/06 1:47
Assistant 11	246	achilles.eps	Print:Newsletters:Health_Letter:1998:06	9/26/06 1:48
Assistant 11	247	ganglioncyst.eps	Print:Newsletters:Health_Letter:2002:07	9/26/06 1:50
Assistant 11	248	Secondaryhypertension.eps	Print:Newsletters:Health_Letter:04:08	9/26/06 1:07
Assistant 11	249	corticosteroids.eps	Print:Newsletters:Health_Letter:2003:09	9/26/06 1:08
Assistant 11	250	fingerimplantsA.eps	Print:Newsletters:Health_Letter:Joint	9/26/06 1:42
Assistant 11	251	arthritisA.eps	Print:Newsletters:Health_Letter:Arthritis	9/26/06 1:59
Assistant 11	252	NORMALOS.eps	Print:Newsletters:HealthSource:1997:11	9/26/06 1:53
Assistant 11	253	frozenshoulder.eps	Print:Newsletters:HealthSource:04:02	9/26/06 1:57
Assistant 11	254	kneeanatomy_front.tif	Print:newsletters:HealthSource:2006:02	9/26/06 1:05
Assistant 11	255	caneart.eps	Print:Newsletters:HealthSource:1997-04	9/26/06 1:09
Assistant 11	256	sarcopenia.tif	Print:newsletters:HealthSource:2006:03	9/26/06 1:11
Assistant 11	257	whscoll.eps	Print:Newsletters:HealthSource:05:04	9/26/06 1:13
Assistant 11	258	bunion.eps	Print:Newsletters:HealthSource:1999:06	9/26/06 1:26
Assistant 11	259	practicalshoe.eps	Print:Newsletters:HealthSource:05:07	9/26/06 1:31

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	Reuse Number	Filename	File Path	Date Time
Assistant 11	260	boneremodel2.eps	Print:Newsletters:HealthSource:04:08	9/26/06 1:32
Assistant 11	261	HL109609.eps	Print:Newsletters:Health_Letter:1996:10	9/27/06 9:28
Assistant 11	262	HL059608.eps	Print:Newsletters:Health_Letter:1996:05	9/27/06 9:30
Assistant 11	263	hair1.eps	Print:Newsletters:Health_Letter:2001:11	9/27/06 9:31
Assistant 11	264	cellulitis.eps	Print:Newsletters:Health_Letter:2001:12	9/27/06 9:32
Assistant 11	265	dermatitishands.eps	Print:Newsletters:Health_Letter:1996-04	9/27/06 9:38
Assistant 11	266	Bruising1.EPS	Print:Newsletters:Health_Letter:1999:02	9/27/06 9:38
Assistant 11	267	Psoriasis.eps	Print:Newsletters:Health_Letter:2000:03	9/27/06 9:39
Assistant 11	268	LASER.eps	Print:Newsletters:Health_Letter:2000:04	9/27/06 9:42
Assistant 11	269	wartsA.eps	Print:newsletters:Health_Letter:05:12	9/27/06 1:52
Assistant 11	270	corns.eps	Print:Newsletters:Health_Letter:1999:06	9/27/06 1:58
Assistant 11	271	hives2.eps	Print:Newsletters:Health_Letter:04:03	9/27/06 1:14
Assistant 11	272	smallpox4.eps	Print:Newsletters:Health_Letter:2002:08	9/27/06 1:17
Assistant 11	273	skincancer.eps	Print:Newsletters:Health_Letter:2002:09	9/27/06 1:19
Assistant 11	274	licehead.eps	Print:Newsletters:Health_Letter:04:09	9/27/06 1:25
Assistant 11	275	HL099711.tif	Print:Newsletters:Health_Letter:1997:09	9/27/06 1:30
Assistant 11	276	Rosacea.EPS	Print:Newsletters:Health_Letter:1998:09	9/27/06 1:31
Assistant 11	277	skin.eps	Print:Newsletters:Health_Letter:Skin_Care	9/27/06 1:34
Assistant 11	278	ACNE1.tif	Print:Newsletters:HealthSource:1997:10	9/28/06 1:27
Assistant 11	279	woundhealing.eps	Print:newsletters:HealthSource:05:12	9/28/06 3:32
Assistant 11	280	nailridges.eps	Print:Newsletters:HealthSource:04:02	9/28/06 3:33
Assistant 11	281	tdpatchtorso.eps	Print:Newsletters:HealthSource:05:02	9/28/06 3:41
Assistant 11	282	hairanatomy.eps	Print:Newsletters:HealthSource:Hair	9/29/06 1:35
Assistant 11	283	Psoriasis.tif	Print:Newsletters:HealthSource:2003:12	9/29/06 1:51
Assistant 11	284	hand.eps	Print:Newsletters:HealthSource:1999:06	9/29/06 1:53
Assistant 11	285	HL029710.tif	Print:Newsletters:Health_Letter:1997:02	9/29/06 5:45
Assistant 11	286	trigeminal.eps	Print:Newsletters:Health_Letter:2003:12	9/29/06 5:48
Assistant 11	287	ANESTHESIAX.EPS	Print:Newsletters:Health_Letter:2000:02	9/29/06 5:49
Assistant 11	288	Sciatica.eps	Print:Newsletters:Health_Letter:2003:02	9/29/06 5:50
Assistant 11	289	NSAIDS.eps	Print:Newsletters:HealthSource:05:01	10/2/06 1:07
Assistant 11	290	sciatica.eps	Print:newsletters:HealthSource:Chronic Pain	10/2/06 1:11
Assistant 11	291	ergokeyboard2.eps	Print:Newsletters:HealthSource:04:05	10/2/06 1:26
Assistant 11	292	womanstretch.eps	Print:Newsletters:HealthSource:1997-04:04	10/2/06 1:28
Assistant 11	293	neckrotation.eps	Print:newsletters:HealthSource:05:09	10/2/06 1:32
Assistant 11	294	stemcells.eps	Print:Newsletters:Health_Letter:2000:11	10/2/06 1:37
Assistant 11	295	HL039708.eps	Print:Newsletters:Health_Letter:1997:03	10/2/06 1:38
Assistant 11	296	cancersurvart02.tif	Print:newsletters:Health_Letter:2006:11	10/1/06 1:52
Assistant 11	297	LUNG3.EPS	Print:Newsletters:Health_Letter:2001:05	10/1/06 1:53
Assistant 11	298	FamilyTree2.eps	Print:Newsletters:Health_Letter:2001:09	10/2/06 1:41
Assistant 11	299	leukemiaA.eps	Print:Newsletters:Health_Letter:1999:11	10/2/06 1:45
Assistant 11	300	HLM30005.eps	Print:newsletters:Health_Letter:n-z:Prostate	10/2/06 3:57
Assistant 11	301	closcope.eps	Print:newsletters:Health_Letter:a-m:Colon	10/2/06 4:31
Assistant 11	302	tumorfinal.eps	Print:newsletters:Health_Letter:a-m:Breast	10/2/06 4:33
Assistant 11	303	cancerchartai.eps	Print:Newsletters:HealthSource:1997-04:04	10/2/06 4:35
Assistant 11	304	dec_05_cover3.eps	Print:newsletters:HealthSource:05:12	10/2/06 4:44
Assistant 11	305	obesitycancer.eps	Print:Newsletters:HealthSource:04:02	10/2/06 4:46
Assistant 11	306	radiationchart2.eps	Print:Newsletters:HealthSource:1997-04:04	10/2/06 5:20
Assistant 11	307	lobectomy.eps	Print:Newsletters:HealthSource:05:03	10/2/06 5:20
Assistant 11	308	angiogenesisA.eps	Print:Newsletters:HealthSource:04:04	10/2/06 5:27
Assistant 11	309	leukemia.eps	Print:Newsletters:HealthSource:2003:05	10/2/06 6:01
Assistant 11	310	melanoma2.eps	Print:Newsletters:HealthSource:2001:07	10/2/06 6:07
Assistant 11	311	pancreasWHS.eps	Print:Newsletters:HealthSource:04:08	10/2/06 6:12
Assistant 11	312	Inhaler.eps	Print:Newsletters:Health_Letter:2003:08	10/2/06 9:04
Assistant 11	313	minimite1.eps	Print:Newsletters:HealthSource:04:04	10/2/06 9:10
Assistant 11	314	insomniaillus.eps	Print:Newsletters:Health_Letter:1998:04	10/2/06 9:29
Assistant 11	315	sleeppaterns.eps	Print:newsletters:Health_Letter:a-m:Sleep	10/3/06 9:31
Assistant 11	316	chestpain.eps	Print:Newsletters:Health_Letter:1998:10	10/3/06 9:37
Assistant 11	317	agespots.eps	Print:Newsletters:HealthSource:1997-04	10/3/06 1:01

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	Reuse Number	Filename	File Path	Date Time
Assistant 11	318	breastlift.eps	Print:Newsletters:HealthSource:05:02	10/3/06 1:12
Assistant 11	319	TMD.eps	Print:Newsletters:Health_Letter:2002:06	10/6/06 1:26
Assistant 11	320	pn7_feelpainTHU.jpg	Online:images:p_q_r:pn_Pain_Management	10/6/06 1:30
Assistant 11	321	HL129612.eps	Print:Newsletters:Health_Letter:1996:12	11/6/06 9:27
Assistant 11	322	fruitchart.eps	Print:Newsletters:Health_Letter:1996-04:04:12	11/6/06 9:40
Assistant 11	323	HL039607.EPS	Print:Newsletters:Health_Letter:1996:03	11/6/06 1:32
Assistant 11	324	FlexEx.EPS	Print:Newsletters:Health_Letter:2000:02	11/6/06 1:36
Assistant 11	325	stepup.eps	Print:Newsletters:Health_Letter:2003:04	11/6/06 1:38
Assistant 11	326	exercisesC.eps	Print:Newsletters:Health_Letter:1999:05	11/6/06 1:49
Assistant 11	327	68606902.eps	Print:newsletters:HealthSource:a-m:Exercise	11/6/06 1:10
Assistant 11	328	bentrow.eps	Print:Newsletters:HealthSource:1997-04:2002	11/6/06 1:21
Assistant 11	329	ILIOTIBIAL.eps	Print:Newsletters:HealthSource:1997:12	11/6/06 1:27
Assistant 11	330	pedometer.eps	Print:Newsletters:HealthSource:04:06	11/6/06 1:15
Assistant 11	331	obesity.eps	Print:Newsletters:Health_Letter:1998:10	11/7/06 1:13
Assistant 11	332	lungs.eps	Print:Newsletters:HealthSource:05:01	11/7/06 1:18
Assistant 11	333	foodlabel.tif	Print:newsletters:HealthSource:2006:02	11/7/06 1:25
Assistant 11	334	bioidentical.eps	Print:newsletters:HealthSource:05:09	11/7/06 1:29
Assistant 11	335	HL119707.eps	Print:Newsletters:Health_Letter:1997:11	11/7/06 1:10
Assistant 11	336	COPD.eps	Print:Newsletters:HealthSource:04:06	11/7/06 1:35
Assistant 11	337	26600FLSRGB75.tif	Print:books: Healthy_Aging:Chapter_01	12/9/06 1:39
Assistant 11	338	displaced_fracture.tif	Print:books:Guide_to_Self-Care:077-090	12/2/06 8:36
Assistant 11	339	baker's cyst.eps	Print:newsletters:Health_Letter:2008:02	1/7/08 11:37
Assistant 11	340	DamageHairCells.eps	Print:newsletters:Health_Letter:a-m:Hearing	1/7/08 11:40
Assistant 11	341	CH1_3b_iris.tif	Print:books:Guide_to_Better_Vision	1/7/08 14:58
Assistant 11	342	clubbing.eps	Print:newsletters:Health_Letter:1996-2006	1/14/08 9:46
Assistant 11	343	VertebralFractue.tif	Print:newsletters:HealthSource:2007:05	1/21/08 1:32
Assistant 11	344	67191_fade_A.tif	Print:Books:Fitness_for_EveryBody:Exercise	1/22/08 8:51
Assistant 11	345	11_sleepstomach.tif	Print:Books:Osteoporosis:Chapter_11	1/29/08 8:13
Assistant 11	346	r7_ruptear.jpg	Online:images:p_q_r:r_Diseases	1/30/08 1:38
Assistant 11	347	ultrasoundresized.eps	Print:Books:Guide_to_a_Healthy_Pregnancy	1/31/08 1:37
Assistant 11	348	03_wristfracture.eps	Print:Books:Osteoporosis:Chapter_03	1/31/08 1:49
Assistant 11	349	Tinnitus.eps	Print:newsletters:Health_Letter:1996-05:2006	2/5/08 1:03
Assistant 11	350	70049.tif	Print:Books:Fitness_for_EveryBody:Ch8	2/6/08 8:32
Assistant 11	351	Vertigo-002.eps	Print:newsletters:Health_Letter:2007:07	2/8/08 10:55
Assistant 11	352	hearing_aid.eps	Print:newsletters:EmbodyHealth:1998-2006:08	2/18/08 1:20
Assistant 11	353	hearingAid.eps	Print:Newsletters:Health_Letter:2003:12	2/18/08 1:21
Assistant 11	354	ha7_hearingaidparts.jpg	Online:images:g_h_i:ha_Senior_Health	2/18/08 1:25
Assistant 11	355	EyeChart.tif	Print:premiums:Disease_Fighting_Foods	2/26/08 1:49
Assistant 11	356	Arteries.tif	Print:premiums:Heart-Healthy_Eating_Guide	2/26/08 1:59
Assistant 11	357	RheumD.tif	Print:books:Arthritis_Straight_Talk_on:39-52	2/28/08 1:41
Assistant 11	358	defecation.eps	Print:Books:Managing_Incontinence:135-152	2/28/08 1:59
Assistant 11	359	rightlateralflex.eps	Print:books:Healthy_Aging:140-187	2/28/08 1:30
Assistant 11	360	HematomaArt1.tif	Print:books:Alzheimers_Disease:Chapter_03	2/28/08 1:42
Assistant 11	361	1356048.eps	Print:books:High_Blood_Pressure:1_published	3/6/08 1:46
Assistant 11	362	metabolicsyndrome.eps	Print:books:High_Blood_Pressure: 227-252	3/10/08 8:37
Assistant 11	363	abdom4.tif	Print:books:Guide_to_Pain_Relief:_151-166	3/11/08 8:29
Assistant 11	364	fl22_crosscradle.jpg	Online:images:d_e_f:fl_Healthy_Baby	3/12/08 1:50
Assistant 11	365	HBresources-PD66107.tif	Print:Books:Family_Health_Book_1377-1390	3/17/08 8:07
Assistant 11	366	Otitis.eps	Print:Newsletters:Health_Letter:2000:08	3/17/08 1:09
Assistant 11	367	18136.tif	Print:books:MC_Plan_for_Healthy_Aging	3/31/08 1:38
Assistant 11	368	09_lowbackextai.eps	Print:Books:Osteoporosis:Chapter_09	5/7/08 10:57
Assistant 11	369	HW-ES-011P-MC6006-01.tif	Print:Books:Fitness_for_EveryBody: 134-187	5/7/08 11:00
Assistant 11	370	TURP.eps	Print:newsletters:Health_Letter:n-z:Prostate	5/8/08 8:20
Assistant 11	371	robotsurgery.eps	Print:newsletters:Health_Letter:2007:08	5/8/08 8:34
Assistant 11	372	BPHFinalB.eps	Print:Newsletters:Health_Letter:04:01	5/8/08 8:35
Assistant 11	373	prostatebladder.eps	Print:Newsletters:Health_Letter:04:08	5/8/08 8:35
Assistant 11	374	BMI_chart01.eps	Print:newsletters:Health_Letter	5/12/08 8:32
Assistant 11	375	23392WCLRGB75.tif	Print:Books:Healthy_Weight_for_EveryBody	5/20/08 1:39
Assistant 11	376	1233693_02.eps	Print:books:Alternative_Medicine:Chapter_1	5/29/08 1:58
Assistant 11	377	Insulinpen.eps	Print:Newsletters:Health_Letter:2000:08	6/2/08 1:39

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	Reuse Number	Filename	File Path	Date Time
Assistant 11	378	dia22_bst_tools.jpg	Online:images:d_e_f:dia_Diabetes	6/2/08 1:41
Assistant 11	379	Chp9painchartnew.eps	Print:books:Guide_to_Pain_Relief: 141-150	6/6/08 8:34
Assistant 11	380	CH09SELF.eps	Print:books:Diabetes: 181-202	6/9/08 1:38
Assistant 11	381	04_acoustictraumaAi.eps	Print:books:Hearing: 77-98	7/9/08 1:08
Assistant 11	382	pelvictilt1_cf.eps	Print:books:Osteoporosis: 137-154	7/10/08 1:55
Assistant 11	383	dia22_altsiteb.jpg	Online:images:d_e_f:dia_Diabetes	7/15/08 9:51
Assistant 11	384	sl22_nasalpillow.jpg	Online:images:s_t_u:sl_Sleep	7/15/08 1:08
Assistant 11	385	d7_pancreaslocation.jpg	Online:images:d_e_f:d_Digestive	7/21/08 1:27
Assistant 11	386	HBP2U.tif	Print:Books:Heart_Book:Part_2	7/30/08 9:35
Assistant 11	387	dia22_dial_insert.jpg	Online:images:d_e_f:dia_Diabetes	7/30/08 9:55
Assistant 11	388	HB30-Kidney1.eps	Print:Books:Family_Health_Book	7/31/08 9:34
Assistant 11	389	toenails2.eps	Print:Newsletters:Health_Letter:2003:03	8/1/08 1:54
Assistant 11	390	kidneytransplant.tif	Print:books:Diabetes:chapters:Chapter_09	8/12/08 9:50
Assistant 11	391	TransplantedKidney.eps	Newsletters:Health_Letter:a-m:Kidney	8/12/08 1:02
Assistant 11	392	gingivitis01.tif	Newsletters:HealthSource:1997-2007:2006	8/26/08 9:42
Assistant 11	393	Neuron1.eps	Newsletters:Health_Letter:a-m:Alzheimer's	9/4/08 10:50
Assistant 11	394	C23Sprd2.tif	Print:Books:Healthy_Weight:Color_section	9/18/08 1:47
Assistant 11	395	Chp9painchartnew.eps	Print:books:Guide_to_Pain_Relief: 141-150	9/23/08 9:34
Assistant 11	396	wt11_bmicalculator.jpg	Online:images:v_w_x_y_z:wt_Weight_Loss	9/25/08 1:45
Assistant 11	397	diffincont.eps	Print:Books:Managing_Incontinence:Ch01	9/25/08 1:12
Assistant 11	398	coloncancer.eps	Newsletters:Health_Letter:1996-2007:1998	9/30/08 1:05
Assistant 11	399	HPBcent2.tif	Print:premiums:High_Blood_Pressure	11/5/08 8:54
Assistant 11	400	Page4AA.tif	Print:premiums:Your_Guide_to_Vitamin	11/5/08 8:55
Assistant 11	401	seated_hamstring_stretch.tif	Print:premiums:Walk_Your_Way_to_Fitness	11/5/08 8:56
Assistant 11	402	Page9rv.tif	Print:premiums:Healthy_Solutions_Diabetes	11/5/08 8:57
Assistant 11	403	EyeChart.tif	Print:premiums:Disease_Fighting_Foods	11/5/08 8:58
Assistant 11	404	NeedleArt0707.tif	Print:premiums:Complementary	11/5/08 8:59
Assistant 11	405	Trig_neuralgiac5.eps	Print:Books:Headache:Color_section	12/3/08 1:21
Assistant 11	406	Vascular infarct_300.tif	Print:books:Alzheimers_Disease:Visual	12/3/08 1:45
Assistant 11	407	CH5_advancedlaucoma.tif	Print:books: Guide_to_Better_Vision	12/5/08 9:21
Assistant 11	408	Tympanoplasty.eps	Print:books:Hearing:Chapter_03	12/5/08 1:25
Assistant 11	409	IntercostalNerves2.eps	Print:books:Guide_to_Pain_Relief	12/1/08 1:12
Assistant 11	410	ParathyroidsA.eps	Print:books:Osteoporosis: 23-36	12/1/08 1:44
Assistant 11	411	EC779127-001-1.eps	Newsletters:Health_Letter:2008:12	12/1/08 1:32
Assistant 11	412	GumHealth.eps	Newsletters:Health_Letter:2008:11	12/1/08 1:35
Assistant 11	413	IschemicHemorrhagic.eps	Newsletters:Health_Letter:2008:10	12/1/08 1:38
Assistant 11	414	ThroidNodule.eps	Newsletters:Health_Letter:2008:09	12/1/08 1:39
Assistant 11	415	COPD.eps	Newsletters:Health_Letter:2008:08	12/1/08 1:40
Assistant 11	416	AneurysmTypes.eps	Newsletters:Health_Letter:2008:05	12/1/08 1:43
Assistant 11	417	ElbowBursa2.eps	Newsletters:Health_Letter:2008:04	12/1/08 1:49
Assistant 11	418	Pericarditis.eps	Newsletters:Health_Letter:2008:03	12/1/08 1:53
Assistant 11	419	Wrist2.eps	Newsletters:Health_Letter:2008:02	12/1/08 1:54
Assistant 11	420	SpinalStenosis.eps	Newsletters:Health_Letter:1996-2007:2007:12	12/1/08 1:57
Assistant 11	421	Intestines.eps	Newsletters:Health_Letter:1996-2007:2007:11	12/1/08 1:59
Assistant 11	422	MicrovesselsArt2.eps	Newsletters:Health_Letter:1996-2007:2007:10	12/1/08 1:01
Assistant 11	423	Fractures-001.eps	Newsletters:Health_Letter:1996-2007:2007:09	12/1/08 1:02
Assistant 11	424	Platelets.eps	Newsletters:Health_Letter:1996-2007:2007:07	12/1/08 1:03
Assistant 11	425	Hearts-B.eps	Newsletters:Health_Letter:a-m:Heart_Failure	12/1/08 1:04
Assistant 11	426	FullDenturesTop3.eps	Newsletters:Health_Letter:1996-2007:06	12/1/08 1:40
Assistant 11	427	PancreatitisB.eps	Newsletters:Health_Letter:1996-2007:2007:04	12/1/08 1:44
Assistant 11	428	PlantarA-001-0.eps	Newsletters:Health_Letter:1996-2007:2007:03	12/1/08 1:46
Assistant 11	429	MammosetRadiation.eps	Newsletters:Health_Letter:1996-2007:02	12/1/08 1:52
Assistant 11	430	SacroilliacPiriformis.eps	Print:books:Guide_to_Pain_Relief: 95-110	12/1/08 9:47
Assistant 11	431	Jointanatomy.eps	Newsletters:Health_Letter:a-m:Arthritis	12/1/08 1:07
Assistant 11	432	UKA1.eps	Newsletters:HealthSource:2008:11	12/2/08 8:37
Assistant 11	433	Sinuscmyk.eps	Newsletters:HealthSource:2008:10	12/2/08 8:52
Assistant 11	434	HDLLDLArt.tif	Newsletters:HealthSource:2008:09	12/3/08 8:56
Assistant 11	435	closcope.eps	Newsletters:HealthSource:2008:08	12/3/08 9:00
Assistant 11	436	smallvesseldisease.tif	Newsletters:HealthSource:2008:02	12/3/08 9:02
Assistant 11	437	chart.eps	Newsletters:HealthSource:2008:01	12/3/08 9:07

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	Reuse Number	Filename	File Path	Date Time
Assistant 11	438	chemotherapy.tif	Newsletters:HealthSource:1997-2007:2007:04	12/3/08 9:11
Assistant 11	439	pap.tif	Newsletters:HealthSource:n-z:Women_Screen	12/3/08 9:13
Assistant 11	440	vulva.tif	Newsletters:HealthSource:1997-2007:07	12/3/08 9:25
Assistant 11	441	ah6a192_t.gif	Online:non-convention:all	12/3/08 1:20
Assistant 11	442	d7_salivaryglands.jpg	Online:images:d_e_f:d_Digestive	12/3/08 1:23
Assistant 11	443	Ablation2.eps	Newsletters:Health_Letter:2008:11	1/8/09 1:54
Assistant 11	444	edema.eps	Print:books:Guide_to_Better_Vision: 45-50	2/18/09 1:19

Appendix E: Reuse of Medical Images by Designers: 2002 to 2009

	Reuse Number	Filename	File Path	Date Time
Designer 1	1	PAINLOCA.tif	Not available	4/30/02 1:21
Designer 1	2	HBILC386.eps	Not available	6/13/02 1:50
Designer 1	3	HBILC371.eps	Not available	6/19/02 1:04
Designer 1	4	C4C5.eps	Not available	6/25/02 1:49
Designer 1	5	PARKINSO.eps	Not available	6/25/02 2:10
Designer 1	6	HBILC207.eps	Not available	6/25/02 4:41
Designer 1	7	Ulcers.eps	Not available	6/25/02 5:05
Designer 1	8	hipjoint.eps	Not available	6/25/02 5:20
Designer 1	9	tumorfinal.eps	Not available	6/26/02 1:25
Designer 1	10	HLM30003.eps	Not available	6/26/02 1:40
Designer 1	11	20a.tif	Not available	6/26/02 1:14
Designer 1	12	18.tif	Not available	6/28/02 8:55
Designer 1	13	gallbladder.eps	Not available	6/28/02 9:32
Designer 1	14	fig101a.eps	Not available	7/9/02 2:08
Designer 1	15	rttrcff.eps	Not available	10/1/02 1:22
Designer 1	16	footcancer_grey.tif	Not available	11/1/02 9:07
Designer 1	17	headache.eps	Not available	11/2/02 9:06
Designer 1	18	spleen.eps	Not available	12/4/02 1:34
Designer 1	19	mconalzheimers.ep	Multimedia:backup:D-FN	9/29/04 3:49
Designer 1	20	e1206602-001-0.eps	Print:newsletters:Health_Letter:05:12	1/26/06 8:51
Designer 1	21	GallstoneBaseArtA.eps	Print:newsletters:Health_Letter:2006:01	2/27/06 4:09
Designer 1	22	OvarianCancerInsideart.eps	Print:newsletters:Health_Letter:05:10	2/28/06 1:27
Designer 1	23	1233693_02.eps	Print:books:Alternative_Medicine	12/1/06 1:44
Designer 1	24	1187413_40.tif	Print:books: The_Plan_3_Steps: Step_03	2/6/07 1:29
Designer 2	1	eye_exam-sm.eps	Not available	10/8/02 1:49
Designer 2	2	Final1rg.tif	Not available	12/2/02 1:07
Designer 2	3	abuse.eps	Not available	1/7/03 11:18
Designer 3	1	HQ7-1.tif	Multimedia:H-J	12/4/04 1:33
Designer 3	2	colonpolyp2.tif	Multimedia:Books:Digestive_Health	1/20/05 9:35
Designer 3	3	digestive_salivary.tif	Multimedia:Books:Digestive_Health	1/20/05 1:49
Designer 3	4	PH2_PT4INTRO.tif	Multimedia:Books:Prostate_Health	2/8/05 9:43
Designer 3	5	ultrasoundresized.eps	Multimedia:Books:Healthy_Pregnancy	2/15/05 4:47
Designer 3	6	MCHP1123a.tif	Multimedia:Books:Healthy_Pregnancy	2/16/05 1:04
Designer 3	7	MCHP1123d.tif	Multimedia:Books:Healthy_Pregnancy	2/16/05 1:35
Designer 3	8	wartsA.eps	Print:newsletters:Health_Letter:05:12	1/24/06 1:12
Designer 3	9	vesicouretralreflux.eps	Print:newsletters:Health_Letter:05:10	1/24/06 1:16
Designer 3	10	CHIRO.tif	Print:premiums:Complementary	1/27/06 1:52
Designer 3	11	GTSC_82.tif	Print:Books:Guide_to_Self-Care	1/31/06 1:38
Designer 3	12	doubleknee.eps	Print:books:Healthy_Aging:Chapter_08	2/2/06 1:55
Designer 3	13	8238_cards28.eps	Print:Books:Healthy_Weight_for_EveryBody	2/2/06 1:12
Designer 3	14	prolotheray.eps	Print:Newsletters:Health_Letter:05:04	2/2/06 13:10
Designer 3	15	DetachedRetina.eps	Print:newsletters:Health_Letter:2006:01	2/27/06 1:59
Designer 3	16	1191272_13.tif	Print:books:Healthy_Aging: Chapter_09	3/6/06 12:35
Designer 3	17	23320WCLRGB75.tif	Print:Books: Healthy_Weight_for_EveryBody	3/14/06 1:45
Designer 3	18	hwp_opener.eps	Print:books:The_Plan_10_Steps	4/25/06 1:57
Designer 3	19	224276591.eps	Print:newsletters:HealthQuest:2006:01	5/10/06 9:57
Designer 3	20	step5-7c.eps	Print:books:The_Plan_10_Steps:Step_05	7/18/06 9:40
Designer 3	21	Food_Servings.eps	Print:Books:Healthy_Weight_for_EveryBody	8/7/06 1:06
Designer 3	22	HBP-Hearts.tif	Print:Books:High_Blood_Pressure	9/4/06 4:04
Designer 3	23	C4_fig10.eps	Print:Books:Vision_and_Eye_Health:Color	11/6/06 2:47
Designer 3	24	fig26.tif	Print:Books:Vision_and_Eye_Health	12/7/06 1:13
Designer 3	25	C3_fig6.eps	Print:Books:Vision_and_Eye_Health:Color	12/8/06 9:28
Designer 3	26	fig26inset.eps	Print:Books:Vision_and_Eye_Health:Ch02	1/8/07 1:00
Designer 3	27	C8_fig18.eps	Print:Books:Vision_and_Eye_Health:Color	1/1/07 1:19
Designer 3	28	fig12a.eps	Print:Books:Vision_and_Eye_Health	1/15/07 8:34
Designer 3	29	C8_fig17.eps	Print:Books:Vision_and_Eye_Health:Color	2/13/07 4:57
Designer 3	30	fig71.eps	Print:Books:Vision_and_Eye_Health	2/20/07 8:58
Designer 3	31	0100396.eps	Print:premiums: Heart-Healthy_Eating_Guide	1/14/08 1:31

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	Reuse Number	Filename	File Path	Date Time
Designer 3	32	diam.eps	Print:Newsletters:HealthSource:2001:07	6/6/08 4:59
Designer 3	33	lllb2_07.eps	Print:premiums:Live_Longer_Live_Better	6/17/08 3:57
Designer 3	34	C8_fig17.eps	Print:books:Guide_to_Better_Vision	6/25/08 1:57
Designer 3	35	kidneytransplant.tif	Print:books:Diabetes:0_resized_files_2007	8/8/08 1:10
Designer 3	36	1248194_05.eps	Print:books:Guide_to_Better_Vision	8/11/08 3:22
Designer 3	37	262_stage2b.eps	Print:Books:Cancers:Visual_Guide	9/3/08 10:40
Designer 4	1	HBIV-15.tif	Multimedia:Books:Healthy_Weight	7/26/04 9:52
Designer 4	2	CH133.tif	Multimedia:Books:Healthy_Weight	9/3/04 12:22
Designer 4	3	C23Sprd2.tif	Multimedia:Newsletters:Health:2003	10/8/04 7:54
Designer 4	4	HBIV-15.tif	Multimedia:Books:Family_Health_Book	2/8/05 10:42
Designer 4	5	neuronstructureai.eps	Print:Books:Alzheimers_Disease	3/17/05 1:09
Designer 4	6	HQ21-1.eps	Print:Books:Guide_to_Self-Care	1/23/06 9:57
Designer 4	7	Xer_C10_5.tif	Print:Books:High_Blood_Pressure	11/5/06 1:51
Designer 5	1	AH6A148.TIF	Multimedia:American_Health_Network-TV	4/11/06 1:26
Designer 5	2	ch7_theheart.tif	Online:images:a_b_c:ch_Children's_Health	4/19/06 1:53
Designer 5	3	WC-31-VaginaLayers.tif	Print:Books:Cancers:Ch31	7/20/06 1:39
Designer 5	4	diverticulosis.eps	Print:Newsletters:Health_Letter:1998:03	8/28/06 9:35
Designer 5	5	HB34-20ai.eps	Print:Books:Family_Health_Book_3rd_edition	12/2/06 1:11
Designer 5	6	CH09ImplantPump.eps	Print:Books:Prostate_Health:Ch09	12/2/06 1:11
Designer 5	7	CH09SEMI.eps	Print:books:Managing_Diabetes:Ch12	12/2/06 1:11
Designer 5	8	45.tif	Print:Books:Heart_Book:Color	12/4/06 1:34
Designer 5	9	NormalAFib-001-0.eps	Print:newsletters:Health_Letter:2007:01	12/4/06 1:34
Designer 6	1	insetcarotidA.eps	Not available	7/17/02 1:55
Designer 6	2	lymphomafigure.eps	Not available	7/19/02 9:29
Designer 6	3	spleen.eps	Not available	7/22/02 1:38
Designer 6	4	jointanatomy.eps	Not available	7/23/02 1:03
Designer 6	5	MCI.eps	Not available	7/29/02 1:39
Designer 6	6	11.tif	Not available	7/30/02 9:14
Designer 6	7	compressionscrew.eps	Not available	8/6/02 10:23
Designer 6	8	Pg34Norm.tif	Not available	8/13/02 1:45
Designer 6	9	CS4_MRI_1.tif	Not available	8/13/02 1:26
Designer 6	10	ileoanal_2-ch8.tif	Not available	8/26/02 1:07
Designer 6	11	exerciser.EPS	Multimedia:Images:Newsletters:Health:2000	6/14/04 1:26
Designer 6	12	kneesreversed.tif	Multimedia:Books:Family_Health_Book	6/14/04 1:56
Designer 6	13	HBC02-01.eps	Multimedia:Books:Family_Health_Book	10/3/04 9:15
Designer 6	14	HBC04-01ai.eps	Multimedia:Newsletters:Health:05:Images	12/3/04 4:57
Designer 6	15	reverseprosthesis1.eps	Multimedia:Newsletters:Health:05:Images	12/9/04 1:57
Designer 6	16	Sacroilliac.eps	Multimedia:Newsletters:Health:04:Images	12/9/04 1:57
Designer 6	17	58101.tif	blished_files:Chapter_04	2/10/05 2:29
Designer 6	18	fsm6_takingpulse.tif	Print:Books:Fitness_for_EveryBody	2/10/05 2:29
Designer 6	19	WC-02-06G-MC6006-AI.eps	Multimedia:Books:Guide_to_Cancers:Images	2/14/05 4:55
Designer 6	20	HW-ES-001P-MC6006-01.tif	Print:Books:Fitness_for_EveryBody	3/30/05 2:35
Designer 6	21	1187413_40.tif	Print:books:The_Plan_10_Steps:Step_04	1/11/06 8:11
Designer 6	22	HB18-05ai.eps	Print:Books:Family_Health_Book_3rd_edition	1/12/06 1:09
Designer 6	23	WC-06-MC6006-01b.eps	Print:Books:Cancers:Chapter_06	1/18/06 1:13
Designer 6	24	chestpress2.eps	Print:books:Healthy_Aging:Chapter_08	1/26/06 1:56
Designer 6	25	MCHP122.tif	Print:Books:Guide_to_a_Healthy_Pregnancy	2/9/06 1:49
Designer 6	26	WC-02-03A-MC6006-01.tif	Print:Books:Cancers:Chapter_02_pages_17-32	2/9/06 1:15
Designer 6	27	WC-33-04A-MC6006-01.tif	Print:Books:Cancers:Chapter_35_531-546	2/15/06 9:24
Designer 6	28	Sacroilliac.eps	Print:Newsletters:Health_Letter:05:01	3/1/06 1:09
Designer 6	29	Roux-en-Y.eps	Print:newsletters:Health_Letter:05:11	3/1/06 1:18
Designer 6	30	EndovascularGraft.eps	Print:newsletters:Health_Letter:05:06	3/1/06 1:25
Designer 6	31	HBC35-01_AcneRosacea.eps	Print:newsletters:Health_Letter:2006:03	3/1/06 1:43
Designer 6	32	OvarianCancerInsideart.eps	Print:newsletters:Health_Letter:05:10	3/1/06 1:46
Designer 6	33	DetachedRetina.eps	Print:newsletters:Health_Letter:2006:01	3/1/06 1:17
Designer 6	34	MChinfoSIG55-03F736.eps	Print:premiums:Complementary	3/3/06 1:11
Designer 6	35	WC-06-02A-MC6006.eps	Print:Books: Cancers:Chapter_06	3/14/06 3:31
Designer 6	36	AA050652.eps	Print:books:The_Plan_10_Steps:Step_02	4/6/06 8:54
Designer 6	37	Alzheimers_03.eps	Print:books:Alzheimers_Disease:Chapter_01	4/6/06 1:19
Designer 6	38	ACH_083R.eps	Print:books:The_Plan_10_Steps:Step_02	4/17/06 2:44

(continues)

	Reuse Number	Filename	File Path	Date Time
Designer 6	39	GTSC_167.tif	Print:Books:Guide_to_Self-Care:Pages157-170	6/2/06 1:45
Designer 6	40	HB5G090.EPS	Multimedia:Family_Health_Book-CD-ROM	7/31/06 1:22
Designer 6	41	colles.eps	Print:Newsletters:Health_Letter:2001:07	7/31/06 1:22
Designer 6	42	displaced_fracture.tif	Print:books:Guide_to_Self-Care_5th_edition	8/16/06 1:58
Designer 6	43	detrusor.eps	Print:Books:Managing_Incontinence	9/27/06 1:34
Designer 6	44	GTSC_155.tif	Print:books:Guide_to_Self-Care_5th_edition	10/3/06 1:14
Designer 6	45	GTSC_figureredo3.eps	Print:books:Guide_to_Self- Care_c2006	10/6/06 1:49
Designer 6	46	HQ31-4.eps	Print:books:Guide_to_Self-Care_5th_edition	11/5/06 8:47
Designer 6	47	Chp9painchart.eps	Print:Books:Chronic_Pain:Chapter_09	11/2/06 9:34
Designer 6	48	C5_fig12b.eps	Print:Books:Vision_and_Eye_Health:Color	12/6/06 1:49
Designer 6	49	hamstringcurl01.tif	Print:newsletters:HealthQuest:2006:04	12/8/06 1:43
Designer 6	50	calfstretch1.tif	Print:newsletters:HealthQuest:2006:05	12/8/06 1:43
Designer 6	51	MD2_C6_WristHrz.tif	Print:books:Diabetes:1_published_files_c2006	1/17/07 2:35
Designer 6	52	CH09SemiRigid.eps	Print:Books:Prostate_Health:Chapter_09	1/19/07 1:24
Designer 6	53	10_vestibularlabyrinth.eps	Print:Books:Hearing:Chapter_10	1/23/07 2:29
Designer 6	54	displaced_fracture.tif	Print:books:EmbodyHealth_Guide_Self-Care	1/29/07 2:49
Designer 6	55	Alzheimers_03.eps	Print:books:Alzheimers_Disease:Chapter_01	7/11/08 1:45
Designer 6	56	TAICHI.tif	Print:premiums:Complementary	7/21/08 1:30
Designer 6	57	Arteries.tif	Print:premiums:Heart-Healthy_Eating_Guide	7/29/08 9:32
Designer 6	58	Page29B.tif	Print:premiums:Healthy_Solutions_Diabetes	7/29/08 1:10
Designer 6	59	HPBcent2.tif	Print:premiums:High_Blood_Pressure	7/29/08 1:12
Designer 6	60	WC-33-01A-MC6006-01.tif	Print:Books:Cancers:Chapter_35_531-546	8/19/08 1:36
Designer 6	61	13_interior.tif	Print:books: Osteoporosis_c2003:Chapter_13	8/19/08 1:38
Designer 6	62	recepts2_1-20.tif	Print:special_projects:My_Path_Smoke-Free	8/19/08 1:43
Designer 6	63	1233693_02.eps	Print:books:Alternative_Medicine:Chapter_1	9/24/08 1:51
Designer 6	64	121828-005-0.eps	Print:books:High_Blood_Pressure:c2007	10/6/08 1:11
Designer 6	65	WC-03-MC6006-01AI.eps	Print:Books:Cancers:Chapter_03_33-52	10/4/08 1:31
Designer 6	66	AllinEar.tif	Print:premiums:10_Tips_for_Better_Hearing	12/1/08 9:03
Designer 6	67	MEL_037.eps	Print:books:Guide_to_Pain_Relief:2008	1/9/09 11:04
Designer 7	1	MicrovesselsArt2.eps	Print:newsletters:Health_Letter:2007	4/29/08 1:19
Designer 7	2	05_tinnitus.eps	Print:books:Hearing: Chapter_05_pages_71-82	7/3/08 10:54
Designer 7	3	Tinnitus.eps	Print:newsletters:Health_Letter:1996-05	7/3/08 10:54
Designer 7	4	d22_digestivesystem.jpg	Online:images:d_e_f:d_Digestive	7/16/08 8:59
Designer 7	5	corneatransplant.eps	Newsletters:Health_Letter:1996-2007:04	9/10/08 1:40
Designer 8	1	WC-04-MC6006-01AI.eps	Multimedia:Books:Guide_to_Cancers:Images	12/9/04 5:10
Designer 8	2	RESTLESSLEGS.eps	Multimedia:Newsletters:HealthSource:1997	1/21/05 8:32
Designer 8	3	BBIL2201.TIF	Print:Books:Complete_Book_of_Pregnancy	3/29/05 9:00
Designer 8	4	HW-ES-106P-MC6006-01.tif	Print:Books:Fitness_for_EveryBody:Exercise	1/16/06 1:54
Designer 8	5	PyramidC2.tif	Print:Newsletters:HealthSource:Weight	1/24/06 1:16
Designer 8	6	MelSkinC.tif	Print:premiums:Medical_Tests_Every_Man	2/1/06 8:14
Designer 8	7	transversus.tif	Print:premiums:Your_Healthy_Back	2/10/06 1:40
Designer 8	8	03.tif	Print:Books:Heart_Book:Color_A1-A16	3/17/06 1:12
Designer 8	9	02_peakbonemassai.eps	Print:Books:Osteoporosis:Chapter_02	4/7/06 1:09
Designer 8	10	06_summarytableai.eps	Print:Books:Osteoporosis:Chapter_06	4/19/06 6:27
Designer 8	11	264_Page9.eps	Print:Books:Cancers:Visual_Guide_257-272	4/25/06 1:12
Designer 8	12	01_normalporous.eps	Print:Books:Osteoporosis:Chapter_01_1-12	5/1/06 1:39
Designer 8	13	C1_fig1b.eps	Print:Books:Vision_and_Eye_Health:Color	5/4/06 10:46
Designer 8	14	stetho.tif	Print:Newsletters:HealthQuest:05:06	5/15/06 1:38
Designer 8	15	OSP0096D.tif	Print:Books:Fitness_for_EveryBody:Ch5	8/9/06 1:13
Designer 8	16	HQ2-2.tif	Print:books:Guide_to_Self-Care_5th_edition	1/10/07 1:10
Designer 8	17	03_collapse2.eps	Print:Books:Osteoporosis:Chapter_03_27-40	2/9/07 1:48

Appendix F: Reuse of Medical Images by Librarians: 2002 to 2009

	Reuse Number	Filename	File Path	Date Time
Librarian 1	1	fingerimplantsA.eps	Not available	3/12/02 4:10
Librarian 1	2	BBIL1903.tif	Not available	6/11/02 1:24
Librarian 1	3	HBIL1902.tif	Not available	8/16/02 1:54
Librarian 1	4	01asrintheeye.tif	Not available	8/22/02 4:36
Librarian 1	5	0100396.eps	Not available	1/17/02 9:10
Librarian 1	6	compressionscrew.eps	Not available	2/1/02 4:33
Librarian 1	7	pg3SideB.tif	Not available	2/11/02 1:21
Librarian 1	8	E1047097-001-0.eps	Not available	3/11/02 1:54
Librarian 1	9	earanatPS.eps	Not available	4/18/02 1:15
Librarian 1	10	HBILC352.tif	Not available	5/8/02 1:33
Librarian 1	11	C3_fig7.eps	Not available	5/23/02 9:19
Librarian 1	12	Diabetes.tif	Not available	5/24/02 9:00
Librarian 1	13	HLM30003.eps	Not available	6/27/02 1:50
Librarian 1	14	closcope.eps	Not available	6/27/02 1:09
Librarian 1	15	irrbowel.eps	Not available	7/12/02 9:50
Librarian 1	16	goiter.eps	Not available	7/22/02 3:29
Librarian 1	17	rootcanal.eps	Not available	7/22/02 3:46
Librarian 1	18	joints.eps	Not available	7/24/02 1:50
Librarian 1	19	CH11KNEE.eps	Not available	8/9/02 9:51
Librarian 1	20	brainfunctions.eps	Not available	8/13/02 1:15
Librarian 1	21	LUNGANAT.eps	Not available	8/16/02 8:24
Librarian 1	22	Arteries.tif	Not available	9/11/02 1:44
Librarian 1	23	brancflt.eps	Not available	9/13/02 1:28
Librarian 1	24	MemryPhotos.tif	Not available	9/23/02 2:27
Librarian 1	25	seizureimplant.eps	Not available	10/8/02 1:16
Librarian 1	26	rectum.eps	Not available	11/4/02 1:19
Librarian 1	27	CP0101.tif	Not available	11/7/02 1:51
Librarian 1	28	HBILC215.eps	Not available	11/9/02 1:07
Librarian 1	29	Memory.eps	Not available	12/4/02 1:00
Librarian 1	30	DFFChapArtF3.tif	Not available	12/1/02 1:43
Librarian 1	31	AcuteleukemiaBM.tif	Multimedia:Books:Family_Health_Book	6/8/04 2:10
Librarian 1	32	BiopsyArtB.eps	Multimedia:Newsletters:Health:04:HL0405	6/29/04 8:29
Librarian 1	33	ah6a331_big.jpg	Multimedia:backup:A-AM	7/9/04 10:08
Librarian 1	34	HB04-ChrisWrist.eps	Multimedia:Books:Family_Health_Book	7/27/04 3:02
Librarian 1	35	CH02SHA2.eps	Print:Books:Prostate_Health:Images	7/27/04 3:15
Librarian 1	36	Acetyp29.eps	Multimedia:Books:Alzheimers_Disease	9/1/04 10:06
Librarian 1	37	mconalzheimers.eps	Multimedia:Premiums:50_Head_to_Toe	9/1/04 3:10
Librarian 1	38	Seated_Twist.eps	Multimedia:Newsletters:Health:2001_HQ0108	9/13/04 9:42
Librarian 1	39	HB43-yoga130.eps	Multimedia:Books:Family_Health_Book	9/13/04 9:45
Librarian 1	40	cm7_yogapose.jpg	Multimedia:AS-C	9/13/04 9:46
Librarian 1	41	spondylitis.eps	Multimedia:Newsletters:Health:04:HL0410	9/29/04 1:47
Librarian 1	42	spastic_gut-ch7.tif	Multimedia:Books:Digestive_Health	9/30/04 2:06
Librarian 1	43	hbp7_secondary.jpg	Multimedia:H-J	12/8/04 2:56
Librarian 1	44	urinary.eps	Multimedia:Newsletters:Health:2001:HL0107	12/8/04 2:56
Librarian 1	45	incont.eps	Multimedia:Newsletters:Health:1998:HL9801	12/8/04 2:57
Librarian 1	46	HL019802.eps	Multimedia:Newsletters:Health:1997:HL9702	12/8/04 2:58
Librarian 1	47	AnorectalProblems.eps	Multimedia:Newsletters:Health:04:HL0407	12/8/04 2:59
Librarian 1	48	bladInervation.eps	Multimedia:Newsletters:Women's:04:HS0403	12/8/04 2:59
Librarian 1	49	PelvicPath.eps	Multimedia:Newsletters:Health:2002:HL0205	12/8/04 3:00
Librarian 1	50	UTI.eps	Multimedia:Newsletters:Health:1999:HL9906	12/8/04 3:02
Librarian 1	51	HB5G278.EPS	Family_Health_Book_CD_ROM	12/8/04 3:03
Librarian 1	52	arth7_toothbrush.jpg	Multimedia:AN-AR	1/10/05 4:16
Librarian 1	53	arth7_keys.jpg	Multimedia:AN-ARMultimedia:AN	1/10/05 4:17
Librarian 1	54	HL069707.psd	Multimedia:Newsletters:Health_Letter:HL9706	1/21/05 1:24
Librarian 1	55	Menopaus.eps	Multimedia:Newsletters:Health: Menopause	1/27/05 9:34
Librarian 1	56	01_normalporous.tif	Fitness_for_EveryBody:Chapter_01_2-21	1/28/05 3:34
Librarian 1	57	MusclesArt.eps	Print:Books:Fitness_for_EveryBody:Ch02	2/1/05 4:08
Librarian 1	58	Bbil2103.eps	Print:Books:Complete_Book_of_Pregnancy	3/15/05 1:55

(continues)

	Reuse Number	Filename	File Path	Date Time
Librarian 1	59	HB12-6ai.eps	Multimedia:Books:Family_Health_Book	3/15/05 2:33
Librarian 1	60	mm00082.jpg	Multimedia:K-N	3/15/05 2:33
Librarian 1	61	pr6_fontanelle.psd	Multimedia:zz_Layered:O-P	3/15/05 2:33
Librarian 1	62	BBIL2204.TIF	Print:Books:Complete_Book_of_Pregnancy	3/15/05 2:37
Librarian 1	63	ans7_breast.jpg	Multimedia:AN-AR	3/15/05 2:41
Librarian 1	64	panel03.eps	Print:Premiums:Core_fitness_chart	3/21/05 3:55
Librarian 1	65	AH6A365.tif	Print:Books:Arthritis_Ch08_121-134	3/15/05 9:21
Librarian 1	66	HB5G145.TIF	Multimedia:Family_Health_Book-CD-ROM	3/8/05 9:16
Librarian 1	67	HematomaArt2.eps	Print:Books:Headache:Color_C1-C8	6/2/06 9:30
Librarian 1	68	Aneurysm.eps	Print:Newsletters:Health_Letter:1999:03	6/19/06 3:53
Librarian 1	69	01_spine.tif	Print:Books:Fitness_for_EveryBody:1-21	8/22/06 8:07
Librarian 1	70	GTSC_figureredo3.eps	Print:books:Guide_to_Self-Care_5th_edition	10/6/06 3:44
Librarian 1	71	HB5G040.TIF	Multimedia:Family_Health_Book-CD-ROM	8/2/06 3:38
Librarian 1	72	8238_cards28.eps	Print:Books:Healthy_Weight_for_EveryBody	10/4/06 4:13
Librarian 1	73	HematomaArt2.eps	Print:newsletters:Health_Letter:2006:08	12/9/06 4:37
Librarian 1	74	m7_vasrev1.jpg	Online:images:m_n_o:m_Men's_Health	1/18/07 1:30
Librarian 1	75	fl22_crosscradle.jpg	Online:images:d_e_f:fl_Healthy_Baby	3/10/08 9:13
Librarian 1	76	BBIL2805.tif	Print:Books:Complete_Book_of_Pregnancy	3/10/08 1:10
Librarian 1	77	14b.eps	Print:premiums: Osteoporosis_Exercise	4/1/08 3:00
Librarian 1	78	burch procedure final3.eps	Print:books:Incontinence:0_resized_files_2007	6/9/08 1:29
Librarian 1	79	09_lowbackext.tif	Print:Books:Osteoporosis:Chapter_09_121-138	6/9/08 1:33
Librarian 1	80	FD003358.tif	Print:Newsletters:HealthSource:1997-04:2002	8/18/08 1:12
Librarian 1	81	Agespots.eps	Print:Newsletters:HealthSource:1997-04:2002	8/18/08 1:18
Librarian 2	1	BiopsyArtB.eps	Multimedia:Newsletters:Health:04:HL0405	6/25/04 8:29
Librarian 2	2	CH06Hell2.tif	Multimedia:Images:Books:Prostate_Health	7/6/04 2:04
Librarian 2	3	ww5r039t.gif	Multimedia:WM-Z	9/2/04 3:48
Librarian 2	4	r7_ischemicstroke.jpg	Multimedia:Q-R	9/21/04 1:07
Librarian 2	5	r7_westnileviruscycle.jpg	Multimedia:Books:Vision_and_Eye_Health	10/2/04 1:47
Librarian 2	6	fig92.eps	Family_Health_Book_CD_ROM	10/2/04 1:49
Librarian 2	7	HB5G160.TIF	Multimedia:Newsletters:Women's:HS0105	10/2/04 2:13
Librarian 2	8	eye.tif	Multimedia:Newsletters:Women's:HS0304	10/2/04 2:13
Librarian 2	9	ret_tear.eps	Multimedia:Newsletters:Women's:Aging	10/2/04 2:13
Librarian 2	10	ret_tear.tif	MultimediaPremiums:Lower_Your_Risk	10/2/04 2:13
Librarian 2	11	Arteries.tif	Multimedia:Books:Guide_to_Cancers	10/2/04 1:13
Librarian 2	12	MCWC01_PG012.jpg	Multimedia:Books:Heart_Book	11/5/04 8:37
Librarian 2	13	36.tif	Multimedia:Books:Heart_Book	12/7/04 9:04
Librarian 2	14	RB2ILA05.tif	Multimedia:Books:Family_Health_Book	12/2/04 1:01
Librarian 2	15	HB35-1E.tif	Multimedia:Books:Heart_Book	12/2/04 2:42
Librarian 2	16	HBP104.eps	Multimedia:Newsletters:Health:2001:HL0103	12/2/04 2:54
Librarian 2	17	myeloB.eps	Multimedia:Books:Family_Health_Book	12/2/04 2:57
Librarian 2	18	HBC09-01.eps	Multimedia:Newsletters:Health:04:HL0407	12/2/04 3:33
Librarian 2	19	bellyworm.jpg	Online:non-convention:all	1/10/06 1:07
Librarian 2	20	HB20-6.tif	Family_Health_Book_3rd_edition:Ch20	1/10/06 1:07
Librarian 2	21	GallstoneBaseArtA.eps	Print:newsletters:Health_Letter:2006:01	1/24/06 3:02
Librarian 2	22	HB33-25ai.eps	Print:Books:Family_Health_Book_3rd_edition	2/22/06 4:02
Librarian 2	23	PelvicPath.eps	Print:Newsletters:Health_Letter:2002:05	2/22/06 4:10
Librarian 2	24	HB23-16Bai.eps	Print:Books:Family_Health_Book_3rd_edition	3/27/06 9:10
Librarian 2	25	pr22_kegels.jpg	Images_090105:pr_Pregnancy	4/14/06 4:21
Librarian 2	26	Ans7_pyo_gangrenosum.jpg	Online:images:a-z:ans_Ask_a_Specialist	5/22/06 7:26
Librarian 2	27	Scan3.eps	Print:Newsletters:Health_Letter:Diabetes	5/22/06 7:42
Librarian 3	1	HBP2W.eps	Print:Books:Heart_Book:Part_2_24-135	2/12/07 4:49
Librarian 3	2	r7_mvp.jpg	Online:images:p_q_r:r_Diseases	2/12/07 4:50
Librarian 3	3	ans7_mitralprolapse.jpg	Online:images:a-z:ans_Ask_a_Specialist	2/12/07 4:55
Librarian 3	4	ww5rn58t.jpg	Online:non-convention:all	2/12/07 5:08
Librarian 3	5	Cochlearimplant.tif	Newsletters:Health_Letter:Special_Reports	9/16/08 2:11
Librarian 3	6	bursitis.eps	Newsletters:HealthSource:1997-2007:2002	12/5/08 1:46
Librarian 4	1	HBP3C.tif	Not available	3/5/02 3:21
Librarian 4	2	cpap1.eps	Not available	6/10/02 9:40
Librarian 4	3	Rosacea.eps	Not available	11/6/02 1:02
Librarian 4	4	d22_stomach.jpg	Multimedia:backup:D-FN	6/30/04 1:41

(continues)

	Reuse Number	Filename	File Path	Date Time
Librarian 4	5	BiopsyArtB.eps	Multimedia:Newsletters:Health:04:HL0405	6/30/04 1:37
Librarian 4	6	fsm22_corecrunch.jpg	Multimedia:backup:FO-G	7/14/04 8:30
Librarian 4	7	01.tif	Multimedia:Images:Books:Heart_Book	7/20/04 2:19
Librarian 4	8	HQ26-3.tif	Multimedia:Books:Guide_to_Self-Care	8/27/04 2:22
Librarian 4	9	prostatebladder.eps	Multimedia:Newsletters:Health:04:HL0408	8/30/04 4:55
Librarian 4	10	HBC13-01.eps	Multimedia:Books:Family_Health_Book	9/16/04 1:41
Librarian 4	11	02_peakbonemassai.eps	Multimedia:Books:Osteoporosis	10/5/04 9:42
Librarian 4	12	mconalzheimers.eps	Multimedia:Premiums:Staying_Mentally	10/5/04 2:33
Librarian 4	13	CalfStrch.tif	Multimedia:Premiums:Walk_Your_Way	10/5/04 2:34
Librarian 4	14	HL129605.eps	Multimedia:Newsletters:Health:1996:HL9612	10/8/04 4:54
Librarian 4	15	OsteoRheum2B.eps	Multimedia:Newsletters:Health:2003:HL0312	10/8/04 4:56
Librarian 4	16	hipjoint.eps	Multimedia:Newsletters:Health:Joint	10/8/04 4:58
Librarian 4	17	WC-MC6006-01AI.eps	Multimedia:Books:Guide_to_Cancers	10/1/04 9:23
Librarian 4	18	HL129604.eps	Multimedia:Newsletters:Health:1996:HL9612	10/1/04 9:28
Librarian 4	19	MCHP3CT2AI.eps	Multimedia:Books:Guide_to_a_Pregnancy	11/1/04 3:25
Librarian 4	20	Echocardiogr.eps	Multimedia:Newsletters:Health:04:HL0410	11/1/04 3:59
Librarian 4	21	balancedchart.eps	Multimedia:Books:Chronic_Pain	11/5/04 1:00
Librarian 4	22	619146-002.eps	Multimedia:Books:Digestive_Health	11/5/04 1:01
Librarian 4	23	hbp7_secondary.jpg	Multimedia:H-J	11/9/04 3:33
Librarian 4	24	HBC29_01_normal2.eps	Multimedia:Books:Family_Health_Book	1/3/05 11:53
Librarian 4	25	liverB.eps	Multimedia:Newsletters:Health_Letter:Liver	1/4/05 5:23
Librarian 4	26	AnatomyArt.eps	Multimedia:Books:Headache:Images	1/6/05 12:31
Librarian 4	27	HBP4Z.tif	Multimedia:Books:Heart_Book	1/13/05 2:43
Librarian 4	28	HL129602.PSD	Multimedia:Newsletters:Health_Letter:1996	1/24/05 2:09
Librarian 4	29	pg01_machlegcurl.eps	Multimedia:Newsletters:HealthQuest:2003	1/26/05 3:55
Librarian 4	30	lungs.eps	Multimedia:Newsletters:HealthSource:05	1/27/05 3:58
Librarian 4	31	fig93.eps	Multimedia:Books:Vision_and_Eye_Health	1/27/05 4:06
Librarian 4	32	StresRev.tif	Print:Premiums:Healthful_Solutions	1/31/05 1:51
Librarian 4	33	olderfatteroutlines.eps	Fitness_for_EveryBody:Front_Matter	2/1/05 12:54
Librarian 4	34	01_porousbone.tif	Print:Books:Fitness_for_EveryBody:Ch01	2/1/05 4:47
Librarian 4	35	abdomhollow.eps	Multimedia:Books:Fitness_For_Everybody	2/3/05 5:02
Librarian 4	36	AGE55PLUS.TIF	Multimedia:Books:Healthy_Aging	2/4/05 9:10
Librarian 4	37	792383-002illustrator.ai	Multimedia:Newsletters:HealthSource:1998	2/9/05 11:14
Librarian 4	38	mh7_pet.psd	Multimedia:zz_Layered:K-N	2/11/05 5:18
Librarian 4	39	bloodsugartest_grey.tif	Multimedia:Books:Managing_Diabetes	2/14/05 2:18
Librarian 4	40	PET_2.tif	Multimedia:Books:Alzheimers_Disease	2/15/05 2:16
Librarian 4	41	Ans7_PETscan.jpg	Multimedia:AN-AR	2/15/05 2:17
Librarian 4	42	lungs.eps	Print:Newsletters:HealthSource:05:01	2/18/05 2:56
Librarian 4	43	PB12_P157865_025_0.eps	Multimedia:Books:Guide_to_a_Pregnancy	2/25/05 3:29
Librarian 4	44	HB24-cochlearimplantA.tif	Print:Premiums:10_Tips_for_Better_Hearing	3/10/05 9:59
Librarian 4	45	panel08.eps	Print:Premiums:Core_fitness_chart	3/10/05 1:01
Librarian 4	46	Buprn_14-15.tif	Print:Special_projects:Path_to_Smoke-Free	3/14/05 5:43
Librarian 4	47	d7_reflux.jpg	Images_090105:d_Digestive	1/6/06 1:22
Librarian 4	48	AcneRosacea.eps	Print:newsletters:Health_Letter:2006:03	2/10/06 1:08
Librarian 4	49	asymdraw.eps	Print:Newsletters:Health_Letter:Skin_Care	2/17/06 2:47
Librarian 4	50	Inhal_Pg8.tif	Print:Special_projects:Path_to_a_Smoke-Free	3/29/06 1:53
Librarian 4	51	AWO_082R.eps	Print:books:The_Plan_10_Steps:Step_02:16-43	5/3/06 10:53
Librarian 4	52	asym.eps	Print:Newsletters:Health_Letter:Skin_Care	5/3/06 11:00
Librarian 4	53	asym.eps	Print:newsletters:Health_Letter:2006:04:5	5/18/06 1:39
Librarian 4	54	HL119909.eps	Print:Newsletters:Health_Letter:1999:11	5/22/06 1:11
Librarian 4	55	aneurysmrepair.eps	Print:newsletters:Health_Letter:05:06	5/24/06 9:56
Librarian 4	56	Food_Servings_blank.eps	Print:Books:Healthy_Weight_for_EveryBody	6/29/06 9:06
Librarian 4	57	ga7_ear_dage.jpg	Online:images:g_h_i:ga_General_Health	7/7/06 3:56
Librarian 4	58	HL060002.EPS	Print:Newsletters:Health_Letter:2000:06	7/12/06 1:23
Librarian 4	59	BackSurgA.eps	Print:Newsletters:Health_Letter:2000:06	7/17/06 1:06
Librarian 4	60	ans7_golferlbow.jpg	Online:images:a-z:ans_Ask_a_Specialist	7/19/06 1:59
Librarian 4	61	PyramidC.eps	Print:Newsletters:Health_Letter:Weight	7/20/06 1:27
Librarian 4	62	prostate close-up.eps	Print:Books:Managing_Incontinence:33-52	7/25/06 1:38
Librarian 4	63	hysteroscopy.tif	Print:newsletters:HealthSource:2006:05	7/27/06 2:20
Librarian 4	64	ftd_normal_3001.tif	Print:books:Alzheimers_Disease:Visual:55-62	11/3/06 9:53

(continues)

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Librarian 4	65	blepharoplasty1.EPS	Print:Newsletters:Health_Letter:2000:09	11/2/06 2:42
Librarian 4	66	HBP104.eps	Print:Books:Heart_Book:Part_1_pages_2-23	12/6/06 1:35
Librarian 4	67	c7_penileimplant.jpg	Online:images:a_b_c:c_Cancer	1/15/07 1:56
Librarian 4	68	10_vestibularlabyrinth.eps	Print:Books:Hearing:Chapter_10_155-176	2/25/08 1:50
Librarian 4	69	hb11_PAD.jpg	Online:images:g_h_i:hb_Heart	5/1/08 12:00
Librarian 4	70	MCHP2DGBB5.eps	Print:Books:Guide_to_a_Healthy_Pregnancy	5/12/08 1:09
Librarian 5	1	CH131.tif	Not available	1/23/02 1:24
Librarian 5	2	HQ38-1.tif	Not available	1/24/02 1:20
Librarian 5	3	BBIL2102.tif	Not available	1/24/02 1:47
Librarian 5	4	MCI.eps	Not available	3/27/02 3:54
Librarian 5	5	C2_axialmri.eps	Not available	4/11/02 3:07
Librarian 5	6	03.tif	Not available	7/8/02 15:51
Librarian 5	7	E1047097-002-0.eps	Not available	7/24/02 3:36
Librarian 5	8	Stenosis.eps	Not available	7/31/02 1:01
Librarian 5	9	cancerart.eps	Not available	8/1/02 9:09
Librarian 5	10	hypertension.eps	Not available	8/22/02 1:18
Librarian 5	11	boneloss.tif	Not available	9/4/02 8:45
Librarian 5	12	HBILC321.tif	Not available	9/4/02 11:31
Librarian 5	13	aneurism3.eps	Not available	9/12/02 8:14
Librarian 5	14	skincancer.eps	Not available	9/19/02 1:51
Librarian 5	15	coronary.eps	Not available	10/1/02 9:43
Librarian 5	16	HBILC396.tif	Not available	10/2/02 4:55
Librarian 5	17	ArthritisRICH 2.eps	Not available	12/8/02 5:04
Librarian 5	18	insetcarotidA.eps	Multimedia:Q-R	9/2/04 4:41
Librarian 5	19	r7_ischemicstroke.jpg	Multimedia:zz_Layered:AN-AR:ans7_VUR	9/2/04 4:44
Librarian 5	20	ans7_VUR.tif	Multimedia:Books:Family_Health_Book	9/15/04 9:02
Librarian 5	21	HBC13-01ai.eps	Multimedia:Books:Healthy_Weight	9/15/04 9:14
Librarian 5	22	CH134.tif	Multimedia:Books:Healthy_Weight	9/16/04 2:05
Librarian 5	23	CH07PtreeVR2copy.eps	Multimedia:Books:Vision_and_Eye_Health	9/22/04 2:34
Librarian 5	24	fig23.tif	Multimedia:Premiums:Walk_Your_Way	9/22/04 5:19
Librarian 5	25	ShoeArt.tif	Multimedia:Books:Family_Health_Book	9/30/04 4:00
Librarian 5	26	HB04-6ai.eps	Print:Books:Digestive Health:Digestive	9/30/04 4:02
Librarian 5	27	ch4CT.tif	Multimedia:H-J	10/6/04 1:50
Librarian 5	28	hb1_ctscan.jpg	Multimedia:Books:Family_Health_Book	10/6/04 1:50
Librarian 5	29	HBIV-2C.tif	Multimedia:Newsletters:Health:04:HL0411	10/3/04 1:26
Librarian 5	30	actinicKeratosis.eps	Multimedia:Books:Osteoporosis	10/7/04 2:48
Librarian 5	31	09_pelvictilt1.tif	Multimedia:S-WL	11/4/04 2:47
Librarian 5	32	wl7_properliftingthu.jpg	Multimedia:O-P	12/5/04 9:19
Librarian 5	33	pn6_lifting.jpg	Multimedia:Books:Osteoporosis	12/5/04 9:55
Librarian 5	34	11_lifting.tif	Multimedia:Books:Baby_Book	12/5/04 9:57
Librarian 5	35	BBIL1102.TIF	Multimedia:Newsletters:Health:04:HQ0406	12/5/04 9:58
Librarian 5	36	lifting01.eps	Multimedia:Books:Family_Health_Book	12/5/04 9:59
Librarian 5	37	linectomy_t.jpg	Multimedia:K-N	1/3/05 4:03
Librarian 5	38	macular.eps	Multimedia:Newsletters:HealthQuest:2001	1/13/05 1:41
Librarian 5	39	HL069707.psd	Multimedia:Newsletters:Health_Letter:1997	1/13/05 1:42
Librarian 5	40	C3_depressed.eps	Multimedia:Books:Depression	1/17/05 8:50
Librarian 5	41	HQ_nose_BW.eps	Print:Newsletters:HealthQuest:05:01	2/17/05 5:36
Librarian 5	42	ch7_babynails.jpg	Online:images:a_b_c:ch_Children's_Health	1/11/06 1:55
Librarian 5	43	fl22_umbilicalcord.jpg	Online:images:d_e_f:fl_Healthy_Baby	1/11/06 1:13
Librarian 5	44	asym.eps	Print:Newsletters:Health_Letter:Skin_Care	2/9/06 12:25
Librarian 5	45	fsm1_ex_disability.jpg	Images_090105:fsm_Fitness	3/7/06 3:01
Librarian 5	46	fsm22_handcyclec.jpg	Online:images:d_e_f:fsm_Fitness_&_Sports	3/7/06 3:09
Librarian 5	47	fl22_cradlecap.jpg	Images_090105:fl_Healthy_Baby	3/7/06 3:13
Librarian 5	48	sn22_milia.jpg	Online:images:s_t_u:sn_Skin	3/7/06 3:17
Librarian 5	49	pr6_milia.jpg	Images_090105:pr_Pregnancy	3/7/06 3:17

Curriculum Vitae

Deirdre Herman

Education

Expected 2014 PhD – Walden University, Applied Management and Science
1994 MLS – University of Maryland, Library Science
1994 MA – University of Maryland, Geography
1989 BA – Hood College, Print Communications

Employment History

2000-present – Editorial Research Manager, Global Business Solutions, Mayo Clinic, Rochester, MN, USA

1996-2000 – Communications Specialist, American Library Association, Washington DC, USA

1994-1996 – Information Resources Specialist, Agency for Healthcare Research and Quality, Rockville, MD, USA

1992-1994 – Editorial Researcher, International Medical News Group, Rockville, MD, USA

1989-1991 – Customer Service Representative, National Geographic Society, Gaithersburg, MD, USA