Toward a Model of the Everyday Life Information Needs of Urban Teenagers, Part 1: Theoretical Model

Denise E. Agosto and Sandra Hughes-Hassell
College of Information Science & Technology, Drexel University, 3141 Chestnut Street, Philadelphia, PA 19104. E-mail: Denise.Agosto@cis.drexel.edu

This is the first part of a two-part article that offers a theoretical and an empirical model of the everyday life information needs of urban teenagers. The qualitative methodology used to gather data for the development of the models included written surveys, audio journals, written activity logs, photographs, and semistructured group interviews. Twenty-seven inner-city teens aged 14 through 17 participated in the study. Data analysis took the form of iterative pattern coding using QSR NVivo 2 software (QSR International, 2002). The resulting theoretical model includes seven areas of urban teen development: the social self, the emotional self, the reflective self, the physical self, the creative self, the cognitive self, and the sexual self. The researchers conclude that the essence of teen everyday life information seeking (ELIS) is the gathering and processing of information to facilitate the teen-to-adulthood maturation process. ELIS is self-exploration and world exploration that helps teens understand themselves and the social and physical worlds in which they live. This study shows the necessity of tying youth information-seeking research to developmental theory in order to examine the reasons why adolescents engage in various information behaviors.

Introduction

The cognitive, emotional, and physical aspects of the maturation process make growing up a difficult process for almost any teenager. Many inner-city teens face a harsh reality of poverty, prejudice, and a lack of strong role models, making this process even more difficult than for teens living in more advantaged situations. Information of all types—from factual information that can help teens understand how the physical world works, to practical information that can help them understand health and survival issues, to philosophical information that can help teens ponder deeper questions and problems relating to the world and their role as future productive citizens—can help make the maturation process easier for urban1 teenagers.

Public and school libraries are in ideal positions for providing these types of information to teenagers. However, little youth-centered research exists that examines either the basic information-seeking behavior of teenagers, or reference and information services for young adults (Shenton, 2004; Shenton & Dixon, 2004; Winston & Paone, 2001). This lack of research makes it difficult for librarians and other information professionals to know what types of information teens need to support their everyday life information-seeking (ELIS) behaviors and to assess how well they are meeting teens’ everyday life information needs.

As limited as the research representing the young adult perspective is, there is even less research focusing specifically on urban young adults and their information needs and uses. The Urban Libraries Council’s (2001) initiative has been the most significant user-centered examination of urban young adults’ library use patterns, and it concluded that urban youth view the public library as an “uncool” and unwelcoming place (Yohalem & Pittman, 2003).

This two-part article presents selected results of a 2002–2005 Institute of Museum and Library Studies (IMLS) research grant designed to investigate these gaps in the research literature. The study sought to determine the people sources/channels urban teens consult when engaging in ELIS, the types of media most commonly used, and urban teens’ most frequent everyday life information needs topics.

Part 1 will focus on the derivation of a theoretical model of urban teens’ common everyday life information needs. It will include a literature review of relevant background literature, an explanation of the study methodology, a discussion of data collection and data analysis, and a consideration of study limitations. Part 2 (Agosto & Hughes-Hassell, in press) will focus on the derivation of the empirical model and on its relationship to the theoretical model.

1The terms “urban” and “inner-city” are used interchangeably to refer to high-density areas in large U.S. cities, especially those areas whose residents come primarily from the lower economic stratum.
**Literature Review**

This work builds on two main areas of research: everyday life information seeking (ELIS), and adolescent information behavior.

**Everyday Life Information Seeking**

Everyday life information seeking refers to the type of information seeking that “people employ to orient themselves in daily life or to solve problems not directly connected with the performance of occupational tasks” (Savolainen, 1995, p. 267)—in other words, information seeking for non-work-related or non-school-related purposes. For example, the average person might turn on the television in the morning while dressing to hear the day’s weather forecast, search the Internet during lunch for information related to applying for a home equity loan, skim newspaper advertisements on the train home from work, and so on throughout the day.

There has been renewed interest in the topic of everyday life information-seeking behavior within the library and information science (LIS) research community in the last decade (e.g., McKenzie, 2003; Nicholas, Huntington, & Williamson, 2003; Savolainen, 1995; Savolainen & Kari, 2004; Spink & Cole, 2001; Williamson, 1998). The ELIS behavior of diverse groups, such as homeless parents (Hersberger, 2001), lesbians (Whitt, 1993), and adolescents making career decisions (Julien, 1999), has been studied. Savolainen (1995), who developed one of the most frequently cited models of ELIS behavior, suggests that ELIS habits and attitudes allow people to use their personal values and beliefs to make meaningful life choices. He introduced the concepts of “way of life” and “mastery of life” for understanding the role of information seeking in an individual’s daily problem-solving activities. “Way of life” is defined as “the order of things” (p. 262), or preferences given to life activities such as household tasks and hobbies. “Mastery of life,” which can be cognitive or affective, and optimistic or pessimistic, serves to keep things in order; that is, it is “a general preparedness to approach everyday problems in certain ways in accordance with one’s values” (p. 264).

Williamson (1998) developed an ecological model of ELIS that emphasizes the context of social and cultural factors that affect information-seeking behavior. The model suggests that although people purposefully seek information in response to perceived needs, they also receive information incidentally through their daily monitoring of the world. Their sociocultural backgrounds and values, physical environments, personal characteristics, and socioeconomic situations and lifestyles determine how they monitor the world. Intimate personal networks (i.e., family and friends) are perceived by users as the most easily accessible sources of information for both incidental information acquisition and purposeful information seeking. Wider personal networks (i.e., clubs, churches, voluntary organizations, etc.) and the mass media are perceived as less accessible, but are still commonly used for both types of information gathering. Institutional sources (i.e., government agencies, information professionals, etc.), on the other hand, are perceived as the least accessible and are less likely to be sources of incidental information.

McKenzie (2003) proposed a social-interaction based ELIS model that further emphasizes the role of social relationships and social contexts in ELIS source selection and information-seeking patterns. The model describes two stages of the information process (making connections and interacting with sources) and four modes of information seeking (active seeking, active scanning, nondirected monitoring, and obtaining information by proxy). The mode(s) users employ depends on the information needed and situational factors.

Much of the ELIS research has employed qualitative methodologies (e.g., Given, 2002; Julien & Michels, 2000; McKenzie, 2003; Savolainen, 1995; Spink & Cole, 2001; Williamson, 1998). Interviews, diaries, participant observation, and other ethnographic methods have proven to be effective not only for procuring rich, authentic ELIS data, but also for gaining participant trust, a critical element in understanding information behavior (Carey, McKechnie, & McKenzie, 2001).

**Adolescent Information Behavior**

Three streams of research on adolescent information behavior are particularly relevant to this project: (a) general adolescent information needs, (b) everyday life information seeking of adolescents; and (c) adolescents’ use of the World Wide Web.

**General adolescent information needs.** The general information needs of adolescents have been the focus of a number of studies since the 1970s. Minudri (1974) identified five areas of teen information needs: school and curriculum needs, recreational needs, personal development needs, vocational and career information needs, and accomplishment skills, and information needs.

According to Fourie and Kruger (1995), adolescents’ basic information needs can be characterized as physiological (security and safety), affective (achievement and self-esteem), and cognitive (self-actualization), and their urges to seek information may be intrinsically or extrinsically motivated. For example, a teen may seek information to reduce uncertainty or to reach a higher level of achievement (intrinsic motivation). On the other hand, a teen may seek information because of an expectation of a reward, such as a grade, to be gained from others for the effort (extrinsic motivation).

Latrobe and Havener (1997) studied the personal and school-related information needs and behaviors of 18 honors students. They identified six categories of information needs: course-related activities, current lifestyles, future plans, relationships with others, health, and general information. Course-related informational needs dealt primarily with test preparation and school assignments. Current lifestyle issues included extracurricular activities, part-time jobs, money, sports, movies, cars, and other recreational
activities. Future plans included college and career choices. Relationships included family, friends, peers, and other acquaintances. Health information dealt primarily with fitness, beauty, alcohol/drugs, sex, and birth control. The last category, general information, encompassed areas such as current events, politics, religion, and social issues.

Shenton and Dixon (2003) created a typology of children’s and teens’ informational needs categories. The typology included 11 major types of information that teenagers need: advice, personal information, affective support, empathetic understanding, support for skill development, school-related subject information, interdriven information, consumer information, self-development information, reinterpretations and supplementations of information, and verificational information.

Adolescents and everyday life information seeking. Several research studies have focused on the everyday life information-seeking (ELIS) behavior of teenagers. Poston-Anderson and Edwards (1993) used qualitative methods to study the role of information in helping 28 adolescent girls address their life concerns. When asked to identify problems or worries they had in the last month, the girls’ concerns fell into two groups: “relationships” and “education and work” (p. 26). Although most of the girls thought information was available to assist them with their problems, few of them believed libraries would contain the information they needed. Instead, the girls turned to family, friends, and teachers.

In a later study specifically focused on how adolescent girls seek information about jobs and education, Edwards and Poston-Anderson (1996) found that the teens engaged in little or no formal information seeking, and tended most often to approach their mothers, and to a lesser extent their fathers. Friends, as well as formal human information sources, such as teachers, career advisers, and librarians, were seldom approached for this type of information. The girls seemed to avoid friends with any questions concerning their life concerns. They did not approach adults, other than their parents, when seeking information on their future plans because they believed most adults did not think it was an appropriate topic for 12- to 14-year-olds.

Julien’s (1999) study of barriers to adolescents’ information seeking for career decision making showed that many adolescents do not understand what decisions they need to make about their futures and that this lack of clarity leads them to feel anxious and overwhelmed. Forty percent of the teens she surveyed said they did not know where to go to get help to make their decisions, and a similar proportion felt that there were too many places to go for their help in information seeking. In addition, the teens reported that when they were offered assistance, they often did not know what questions to ask, and that they frequently encountered problems accessing information systems.

The findings of Todd’s (1999) study of how adolescents utilize information about heroin seemed to contradict the findings of the above studies. Rather than finding adolescents to be passive processors of information, Todd found that when teenagers are engaged in the information-seeking process they are active creators of new knowledge who intentionally and deliberately seek and manipulate information to adapt and create pictures of their world.

Adolescents’ use of the World Wide Web. Large (2004) assembled a comprehensive literature review focused on the use of the Web by children and teenagers. Of relevance to the current project is the research concerned with Web applications, i.e., how teenagers use the Web.

Large-scale national surveys (e.g., Environics Research Group, 2001; Infoplease.com; 2000; Lenhart, Raine, & Lewis, 2001), as well as small-scale studies (e.g., Miller, Schwein-gruber, & Brandenburg, 2001; Vansickle, 2002) done in the United States and Canada reveal that teenagers use the Web for school-related projects/assignments, recreation or leisure, and to communicate with family and friends. The most popular leisure activities among teenagers are playing and downloading games, visiting sites on apparel and fashion, accessing information on sports, movies, concerts, television programs, and so on. Communication technologies used by teens include e-mail and chat, or instant messaging.

Only a few studies focus specifically on how urban youth use the Internet. In an analysis of the Web sites visited by inner-city children and young adolescents in a San Francisco public library, Sandvig (2001) found that the most popular sites provided games, or chat and email services. In interviews, the youth reported that one of the main attractions of Internet access at the public library was that they could choose to visit “fun” sites, rather than being restricted to educational sites. Similarly, Agosto’s (2002) work with urban and suburban teenage girls showed them to be bored by most award-winning educational Web sites due to a mismatch between adults’ and teens’ Web site design and content preferences.

In a study of New York City young adults, Bleakley, Merzel, VanDevanter, and Messeri (2004) determined that inner-city youth not only use the Internet for e-mail, chat, games, music lyrics, and sports, but also to locate health information. Forty-one percent of the teenagers they interviewed reported seeking health information on the Internet, with no gender differences.

Kupperman and Fishman (2002) used case study methodology to examine how four inner-city Latino middle school students and their families utilized the Internet. Each of the families was given access to the Internet through NetTV and their use was monitored for a period of one year. Kupperman and Fishman classified most of the uses of NetTV as “ordinary, low-tech activities: looking at pictures of cars or youth idols, sending notes to classmates, looking for an encyclopedia article or newspaper article for a homework assignment, or reading about consumer goods” (p. 20). They found that more sophisticated uses of the Internet, such as publishing one’s own information or accessing current and original sources of data, were absent.
Tsikalas and Gross (2002) studied the use of computers by 89 low-income, minority urban adolescents enrolled in a program sponsored by Computers for Youth, a New York City based nonprofit organization that places computers in the homes of underserved children and provides an array of services to help them use the technology to enhance learning in the home and to improve quality of life. The teens engaged in a variety of computing activities at home—word processing, playing games, designing and editing graphics, surfing the Web, and communicating via e-mail, chat, and instant messaging. For the most part, daily computing activities did not differ by gender, age, grade, ethnicity, or prior home computer access.

Methodology

Qualitative methods were chosen for this project. As discussed in the introduction, prior to this study there was insufficient existing knowledge to formulate a theoretical or empirical model of urban teen ELIS. In such cases, hypothesis formulation is not possible, and qualitative research methods are best suited to gathering sufficient exploratory data for theory and model formulation (e.g., Fredricks, Alfeld-Liro, Hruda, & Eccles, 2002; Oliver & Riley, 1996; Wolff-Michael, 2001). As is common in qualitative research, multiple forms of data were collected to serve as data triangulation and construct validation (Gorman & Clayton, 2005).

Study Participants

Twenty-seven Philadelphia young adults aged 14 through 17 participated in the study on a volunteer basis and were paid modest compensation as encouragement to complete the study. All were Philadelphia high school students in grades 9 through 12 who lived in inner-city communities and were predominantly from the lower socioeconomic division. Twenty-five were African American; one was Asian American; and one was White. The participants represented two different populations: 16 were members of the Free Library of Philadelphia’s Teen Leadership Program, and 11 were participants in the Boys & Girls Clubs of Philadelphia after-school programs.

Each of the Free Library participants was employed at one of the Free Library branches as a TLA (Teen Leadership Assistant), assisting school children with homework and taking part in program preparation and delivery. Data from participant surveys indicated that the majority (11, or 68.8%) had home access to computers. They used public and school libraries infrequently for their own purposes, even though they were employed at the Free Library of Philadelphia at least 2 days a week.

Survey data from the 11 Boys & Girls Club participants indicated that about half had access to computers at home (6, or 54.5%, had home computers). They too were infrequent public and school library users.

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<thead>
<tr>
<th>Question: How old are you?</th>
<th>Response</th>
<th>Raw Number</th>
<th>%</th>
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<tbody>
<tr>
<td>14</td>
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<td>4</td>
<td>14.81</td>
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<td>15</td>
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<tr>
<th>Question: What grade are you in school?</th>
<th>Response</th>
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<tr>
<td>9th</td>
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<td>7.41</td>
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<thead>
<tr>
<th>Question: How often do you use computers (check one)?</th>
<th>Response</th>
<th>Raw Number</th>
<th>%</th>
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<tbody>
<tr>
<td>Every day</td>
<td></td>
<td>15</td>
<td>55.56</td>
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<tr>
<td>Three to four times a week</td>
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<td>6</td>
<td>22.22</td>
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<td>Twice a week</td>
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<tr>
<td>Once a week</td>
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<tr>
<td>Less than once a month</td>
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<td>1</td>
<td>3.70</td>
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</tbody>
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<tr>
<th>Question: If you do use computers, where do you use them (check all that apply)?</th>
<th>Response</th>
<th>Raw Number</th>
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<tbody>
<tr>
<td>At home</td>
<td></td>
<td>17</td>
<td>62.96</td>
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<tr>
<td>At school</td>
<td></td>
<td>19</td>
<td>70.37</td>
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<tr>
<td>At the public library</td>
<td></td>
<td>17</td>
<td>62.96</td>
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<tr>
<td>Other: Boys &amp; Girls Club</td>
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<td>3</td>
<td>11.11</td>
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<tr>
<td>Other: friend’s house</td>
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<td>7.41</td>
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<tr>
<td>Other: cousin’s house</td>
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<td>1</td>
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Data Collection and Data Analysis

Data were collected in two stages. For stage one, the participants provided data over the period of 1 week in the following ways:

- Written surveys: The surveys included questions relating to age, grade in school, access to computers, school and public library use frequency and purposes, and perceived computer skills. Selected survey results are summarized in Table 1.
- Audio journals: Each participant was given a tape recorder and asked to keep an audio journal for 7 days. Teens were instructed to discuss the kinds of issues that came up each day that required them to get information and to describe any efforts they took in addressing their information needs.
- Written activity logs: Each participant was asked to record questions that arose each day during the week and to indicate where, or to whom, they looked for related information.
- Digital camera tours: Each participant used a disposable camera to take pictures of the places in his or her neighborhood where he or she typically goes for information.

<table>
<thead>
<tr>
<th>TABLE 1. Summary of selected survey responses (N = 27).</th>
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<th>%</th>
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<tbody>
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<td>Less than once a month</td>
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<td>3.70</td>
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</table>

The total percentage for this question exceeds 100% due to multiple responses per participant.

Participants wrote “Boys & Girls Club,” “friend’s house,” and “cousin’s house” in response to “Other (please specify).”
After these initial data were collected, the researchers analyzed the written activity logs using iterative pattern coding (Miles & Huberman, 1994), with QSR NVivo 2 software (QSR International, 2002). Iterative pattern involves repeated readings of the transcribed data leading to the development of a coding scheme for continued analysis. This process is comparable to the constant comparative method (Glaser & Strauss, 1967; Lincoln & Guba, 1985), the most common method for analyzing qualitative data. The initial coding scheme included three major categories of codes: places/sources of information, people consulted, and types of questions.

For the second stage of data collection, the researchers presented this initial coding scheme to the participants in a series of semistructured group interviews (Fontana & Frey, 1998). Four interviews were conducted, two at the Boys & Girls Club facilities and two at the Free Library of Philadelphia. The interviews served as participant verification of the preliminary data analysis results and as a means of gathering additional data.

During the interviews, the participants discussed the initial coding scheme, rearranging existing codes and suggesting additional codes. For example, to create the initial analysis of the written logs the researchers used frequency of occurrence to organize the codes within each major thematic category. During the group interviews, the participants chose to rearrange the codes according to a combination of frequency of occurrence and life significance. This meant that some relatively infrequently used codes moved up within the coding scheme, and some frequently used codes moved down, leading to major scheme rearrangement.

As an example of a new code that the participants added to the initial working scheme, the participants added the category of “mentors” to the list of human information sources/channels. They explained that they actively seek adult mentors who can guide them in their lives, especially in the areas of employment, career, and health information, and that they gave examples of their various mentors, such as physicians, ministers, and supervisors at their places of employment. (For a more detailed explanation of the data analysis process, see Agosto & Hughes-Hassell, 2005.)

For the second portion of the interviews, each participant was asked to describe a recent significant incident involving an everyday life information need. The stories the teens told ranged from one young woman’s need to find out what time the Red Lobster stopped seating customers for dinner, to one young man’s search for a photograph of his favorite radio deejay, to another young woman’s desire to find out the answer to a question: “Is Michael Jackson really Black or not?”

The researchers then reanalyzed the data from the written logs as well as analyzing the remainder of the data from the initial data collection phase and the data from the group interviews to develop a revised coding scheme. The final coding scheme, or typology of urban teens’ everyday life information seeking, included four major categories of codes: people sources/channels, mediated communication media, media sources, and information needs topics (see Table 2). Each of the secondary level codes in the typology represents an observable, measurable aspect of information behavior. For example, the participants indicated a preference for ELIS via “friends/family” as human information sources, reflecting a common finding in ELIS research (Savolainen, 2004) and in youth information behavior research (Shenton & Dixon, 2003) as well.

### Development of the Theoretical Model

The researchers decided that an integrated theoretical model of urban teen ELIS topics, media, and human information sources/channels was premature because a basic model of the reasons for which urban teens need everyday life information was missing from the field. Consequently, they sought to create a theoretical model focusing on the category codes in section four of the coding scheme, “Information Needs Topics,” and to correlate these topics to more general theoretical functions of urban teen ELIS. These 28 codes together represent topics for which the study participants actively sought information, or for which they needed information but did not seek it. Future work will focus on analysis of the three remaining major categories in the coding scheme.

For example, the participants sought/needed/wanted information pertaining to “heritage/cultural identity” (information needs topic 4.27). An excerpt from an audio journal helps to illustrate this type of information need: “I really am interested in Savannah, Georgia, because that’s where my Grandma was born, and I’d like to go back to my roots. If I

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>People sources/channels</td>
<td>4.1</td>
<td>Creative performance</td>
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<tr>
<td>1</td>
<td>Friends/family</td>
<td>4.2</td>
<td>Academics</td>
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<td>1</td>
<td>School employees</td>
<td>4.3</td>
<td>Personal finances</td>
</tr>
<tr>
<td>1</td>
<td>Mentors</td>
<td>4.4</td>
<td>Current events</td>
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<tr>
<td>1</td>
<td>Customer service staff</td>
<td>4.5</td>
<td>Goods and services</td>
</tr>
<tr>
<td>1</td>
<td>Other teen (not friend)</td>
<td>4.6</td>
<td>Emotional health</td>
</tr>
<tr>
<td>1</td>
<td>Librarians</td>
<td>4.7</td>
<td>Friend/peer/romantic relationships</td>
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<td>1</td>
<td>Passers-by</td>
<td>4.8</td>
<td>Popular culture</td>
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<tr>
<td>2</td>
<td>Communication media</td>
<td>4.9</td>
<td>Familiar relationships</td>
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<td>2</td>
<td>Face-to-face</td>
<td>4.10</td>
<td>Fashion</td>
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<td>2</td>
<td>Telephone</td>
<td>4.11</td>
<td>College</td>
</tr>
<tr>
<td>2</td>
<td>Computer</td>
<td>4.12</td>
<td>Health</td>
</tr>
<tr>
<td>3</td>
<td>Media Sources</td>
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<td>Physical safety</td>
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<td>Computer</td>
<td>4.14</td>
<td>Self-image</td>
</tr>
<tr>
<td>3</td>
<td>TV</td>
<td>4.15</td>
<td>Job responsibilities</td>
</tr>
<tr>
<td>3</td>
<td>Book</td>
<td>4.16</td>
<td>Social/legal norms</td>
</tr>
<tr>
<td>3</td>
<td>Print ephemera</td>
<td>4.17</td>
<td>Philosophical concerns</td>
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<td>Newspaper</td>
<td>4.18</td>
<td>Creative consumption</td>
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<td>3</td>
<td>Magazine</td>
<td>4.19</td>
<td>Career</td>
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<tr>
<td>3</td>
<td>Radio/CD player</td>
<td>4.20</td>
<td>School culture</td>
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<td>3</td>
<td>Telephone (automated)</td>
<td>4.21</td>
<td>Sexual safety</td>
</tr>
<tr>
<td>3</td>
<td>School notebook</td>
<td>4.22</td>
<td>Sexual identity</td>
</tr>
<tr>
<td>4</td>
<td>Information Needs Topics</td>
<td>4.23</td>
<td>Religious practice</td>
</tr>
<tr>
<td>4</td>
<td>Daily life routine</td>
<td>4.24</td>
<td>Civic duty</td>
</tr>
<tr>
<td>4</td>
<td>Heritage/cultural identity</td>
<td>4.25</td>
<td>Self-actualization</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Example</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savannah, Georgia</td>
<td>Heritage/cultural identity</td>
</tr>
<tr>
<td>Are you interested in Savannah, Georgia?</td>
<td>Heritage/cultural identity</td>
</tr>
</tbody>
</table>

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could go to school down there and could find more about my heritage, that would be great” (0211; 136–1395). The participant expressed an interest in learning more about Savannah and her cultural heritage, although she did not take any actions toward finding related information.

**Havighurst’s (1972) developmental tasks of adolescence.** To move from the empirical realm to the theoretical realm, the researchers first searched for a previously existing theory that might help to explain and deepen the empirical findings. Havighurst (1972) developed 11 developmental tasks to describe developmental changes that occur during adolescence. His typology is often used as a basis for examining adolescent behaviors across the spectrum of the social sciences (see, for example, Hoksbergen, 1997; Hughes-Hassell & Miller, 2003; Malmberg & Trempa, 1997; Noom, Dekovi, & Meeusa, 2001; Roisman, Masten, Coatsworth, & Tellegen, 2004).

The 11 developmental tasks are:

1. Adjusting to a new physical sense of self
2. Adjusting to new intellectual abilities
3. Adjusting to increased cognitive demands at school
4. Expanding verbal skills
5. Developing a personal sense of identity
6. Establishing adult vocational goals
7. Establishing emotional and psychological independence from his or her parents
8. Developing stable and productive peer relationships
9. Learning to manage his or her sexuality
10. Adopting a personal value system
11. Developing increased impulse control and behavioral maturity

Havighurst’s framework helped to shed light on the reasons for which the study participants sought (or needed or wanted but did not seek) everyday life information. For example, it helped to explain that some of the participants needed information relating to sex-related issues to help them learn to manage their sexuality (Havighurst’s task #9). However, Havighurst’s typology did not provide a theoretical overview of urban teen ELIS; it merely provided a list that could explain some of the developmental functions that some of the participants’ information needs topics supported.

Combining the ideas presented in Havighurst’s typology with the final project typology (Table 2) led the researchers to organize the 28 information needs topics into seven areas of teen development and conclude that the essence of teen ELIS is the gathering and processing of information to facilitate the multifaceted teen-to-adulthood maturation process. ELIS is self-exploration and world exploration that helps teens understand the world and their positions in it, as well as helping them to understand themselves now and to contemplate who they aspire to be in the future. Urban teen ELIS behaviors support the development of the social self, the emotional self, the reflective self, the physical self, the creative self, the cognitive self, and the sexual self.

**Independent variables.** Each of these seven “selves” became an independent variable in the theoretical model (see Figure 1). Each of the seven independent variables refers a subset of an adolescent’s growing understanding of himself or herself and of the world in which he or she lives. The social self refers to a teen’s grasp of the human social world and of his or her growing realization of how he or she fits into that world. Whereas the social self refers to the external world, the emotional self refers to a teen’s inner world of feelings and emotions, or a teen’s personal reactions to the external world. The reflective self also refers to a teen’s inner world, but it differs from the emotional self in that the focus is more introspective. It involves questioning one’s self-identity, one’s personal beliefs about the world, and one’s place in the world. With the physical self, the focus returns to the external world. It involves one’s physical presence in the external world, including issues such as personal safety, daily life routines, physical health, and job responsibilities. The creative self refers to fulfillment of a teen’s aesthetic needs both by the construction of creative products and acts, and by the expression of one’s judgment of or appreciation of a creative work. The cognitive self refers to a teen’s intellectual comprehension of the physical world, as opposed to his or her personal reactions to elements of that world, as included under the emotional self. Lastly, the sexual self refers to understanding issues involved with human sexuality, from one’s own sexual identity, to issues concerning sexual health, to an understanding of sexual practices (Figure 1).

It is important to note that each of these seven independent variables is influenced by personal situation and cultural setting. The degree of importance of each variable in a teen’s life therefore varies from person to person and fluctuates as time progresses. The variables are not mutually exclusive and in fact often overlap, as some information

![FIG. 1. A theoretical model of urban teen development.](image_url)
needs support the development of multiple “selves.” Considering the data excerpt shown above, the participant’s interest in learning about Savannah, Georgia, serves to support the development of the reflective self (of which a sense of cultural identity is a part), as well as the development of the cognitive self, in that her curiosity is motivated both by a desire to understand better her cultural heritage and by her curiosity about a new place.

Havighurst’s typology of tasks could be correlated to a number of the behaviors captured within the study data and reflected in the final coding scheme, such as tying information relating to “sexual safety” to Havighurst’s ninth task, “learning to manage his or her sexuality.” However, Havighurst’s typology proved inadequate to support all of the information needs topics included in the final typology shown in Table 2. It was therefore necessary to create additional tasks to augment Havighurst’s original list of 11, for a combined 23 tasks.

For instance, under the information needs task “social/legal norms” (4.18), one participant wrote the following question on his activity log: “What kind of attire is bad to wear at a funeral?” (003; 79). Questions of this type did not correlate to any of Havighurst’s 11 developmental tasks. The new task “understanding and negotiating the social world” was added to encompass these types of questions.

The 12 additional developmental tasks of adolescence are:

a. Understanding and negotiating the social world
b. Seeking emotional health and security
c. Establishing relationships with adults other than parents/guardians
d. Developing a sense of civic duty
e. Establishing a cultural identity
f. Questioning how the world works
g. Developing physical self-sufficiency
h. Seeking physical safety and security
i. Expressing artistic preferences
j. Expressing aesthetic preferences
k. Understanding the physical world
l. Learning to recognize and accept his or her sexuality

Part 2 (Agosto & Hughes-Hassell, in press) of this article will provide examples from the data to support the existence of each of these 23 developmental tasks of adolescents.

Operationalizations. This augmented typology of the developmental tasks of adolescence serves as the operationalizations of the seven independent variables in the theoretical model. In the operationalization list below, tasks followed by numbers came from Havighurst’s original typology; tasks followed by letters are new additions to Havighurst’s list:

- Social self: Developing stable and productive peer relationships (8); understanding and negotiating the social world (a)
- Emotional self: Establishing emotional and psychological independence from his or her parents (7); developing increased impulse control and behavioral maturity (11); seeking emotional health and security (b); establishing relationships with adults other than parents/guardians (c)
- Reflective self: Developing a personal sense of identity (5); establishing adult vocational goals (6); adopting a personal value system (10); developing a sense of civic duty (d); establishing a cultural identity (e); questioning how the world works (f)
- Physical self: Adjusting to a new physical sense of self (1); developing physical self-sufficiency (g); seeking physical safety and security (h)
- Creative self: Expressing artistic preferences (i); expressing aesthetic preferences (j)
- Cognitive self: Adjusting to new intellectual abilities (2); adjusting to increased cognitive demands at school (3); expanding verbal skills (4); understanding the physical world (k)
- Sexual self: Learning to manage his or her sexuality (9); learning to recognize and accept his or her sexuality (l)

Limitations

One limitation of this study is that findings are not fully generalizable to the larger population of U.S. inner-city teenagers. The goal of qualitative research, however, is not generalizability, but “transferability” (Lincoln & Guba, 1985, p. 297). Qualitative research seeks to create a very detailed description of a smaller pool of participants than quantitative research typically employs. Transferability indicates that the findings can do much to describe the behaviors of a similar pool of people, but it is understood that there are always variances in human behavior. Thus, the results of this study are intended to be largely transferable to the broader population of U.S. inner-city teenagers ages 14–17, but there will be some variance as contexts vary.

Another possible limitation is that the teens who participated in this study were all willing participants in voluntary extracurricular activities at either the Boys & Girls Clubs or the Free Library of Philadelphia. As a result, these teens’ behaviors and preferences might vary somewhat from that of other inner-city teens who are not willing to participate in similar voluntary activities. Future research is needed to determine the extent to which this might have affected the transferability of the results.

The small size of the participant pool is another limitation. It was necessary to limit the size of the participant pool to gather the depth of data desired without creating an unmanageably large data pool. This research is intended as the first step in an extended research agenda that will work with additional participant pools to continue to test and expand upon the ideas presented here.

Finally, the nearly homogenous race/ethnicity of the participants is a limitation of this study. It is likely that some of the information behaviors detected in the study reflect the African American background of 25 of the 27 participants. However, there is insufficient related research to determine how large a role race/ethnicity played in influencing their behaviors. This is another necessary area of future investigation.
Conclusion

Implications for Information Service to Teens

Experts in the field of young adult information services have been saying for decades that services for teens need to support the entire person—the physical, cognitive, affective, and social being—yet many libraries still support primarily homework and pleasure reading needs (e.g. American Library Association, 1977; Edwards, 1969; Jones, 1998; Leyland, 1937; Walter & Meyers, 2003). Urban teens want and need information to support their emerging sexuality, their pressing financial needs, their attempts to understand the social worlds in which they live, their self-doubts about who they are and what role they can play in society, and so on. Information professionals can use the theoretical model, and the empirical model presented in Part 2 (Agosto & Hughes-Hassell, in press) as well, to examine their services and expand them to include the many equally important types of everyday life information needs that urban teens have.

While an understanding of these seven abstract areas of urban teen development can help young adult librarians better understand the changes and major issues with which their teen patrons are grappling, it is also helpful to understand the kinds of information that teens need when dealing with these issues. Thus, it is important to understand how the 28 information needs topics in the coding scheme (Table 2) relate to the seven areas of teen development that comprise the theoretical model (Figure 1). A detailed examination of these relationships and the presentation of the empirical model is the focus of Part 2 (Agosto & Hughes-Hassell, in press) of this article.

The Significance of the Theoretical Model

The theoretical model clearly demonstrates that the essence of urban teens’ ELIS is the gathering and processing of information to facilitate the multifaceted teen-to-adult maturation process. ELIS for these teenagers is self-exploration and world exploration that helps them understand the world and their positions in it, as well as helping them to understand themselves now and to understand who they aspire to be in the future.

As the project data show, maturation is not a strictly linear process, moving directly from childhood to teenhood to adulthood and leaving each preceding stage behind. On the contrary, the participants played parts of the roles of children, adolescents, and adults simultaneously. The participants’ responses to the interview question asking them to describe a recent significant incident involving an everyday life information need can illustrate this fact. For example, in a classic child–parent exchange, one of the female participants explained that she had needed to know what would make a good, quick breakfast one morning during the data collection period. She consulted her mother, who gave her a granola bar in response, reflecting a common childhood role of receiver of nourishment from parent, even though the teen was capable of selecting and procuring her own meal.

Other needs were more typical of teenhood, as in the case of the female participant who told the story of needing to communicate the color of her prom dress to her date while still wanting to keep the look of her a dress a surprise for the big night. As she explained in the interview:

I had bought a dress . . . It’s two different colors mixed that you don’t know the name of it, so in order for my prom date to get the same color shirt and things . . . I asked this boy who work[s] in a paint store, and he [said], “Come down here and just look at the colors, the little tablet things.” And I went down there, and he had the shade of my dress right there. So I took that color [sample] with me. I gave my date a copy.

Here the participant is playing a classic teen role: preparing for a school dance.

During that same interview, a third participant explained that her best friend and fellow ninth-grader had just given birth to a baby. Her ELIS story involved her desire to purchase a changing table for the baby, despite her limited financial means. She asked some of the students in her English class for store recommendations, and then she went comparison-shopping. Her story demonstrates that many teens grapple with issues traditionally reserved for adulthood, such as caring for a baby, while still being faced with the typical issues of teenhood, such as ninth-grade homework.

As Savolainen (2004) has said, “The ELIS studies conducted since the 1970s indicate that everyday life information needs and seeking are affected by a number of cognitive, emotional, cultural, and situational factors. Most frequently, everyday life information needs are related to health issues, consumer problems, housing, and various kinds of hobbies” (p. 7). This study shows that in the case of urban adolescents, ELIS needs are first developmental in nature. That is, even though “health issues, consumer problems, housing, and various kinds of hobbies” do figure prominently as areas of need, the deeper issue underlying these needs is information for developmental support.

Overall, this study shows the necessity of tying youth information-seeking research to developmental theory. The bulk of adolescent information behavior research has been descriptive in nature. It is now time to focus on understanding the developmental reasons why adolescents engage in various information behaviors, as opposed to simply describing those behaviors.

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References


Studying the overlap in mature undergraduates’ information-seeking behaviors. Library & Information Science Research, 26, 415–433.


