Information Literacy Framework for Philadelphia University

Introduction
The primary goal of an information literacy program is to create intrinsically motivated life-long learners, possessing critical thinking skills. Individual institutions must decide what information literacy skills and competencies are to be stressed, and how this is to be accomplished. The institutional definition of information literacy will guide these information literacy goals.

The Objectives stated below do not specifically address **technological** literacy, per se, or identify skills associated with particular online resources (e.g., Lexis/Nexis or ABI/Inform) as "technological outcomes." Assignment design will address the technological *component* of information literacy.

Scope
At this time, the scope of this Framework includes only undergraduates in University four or five-year programs. Although the Objectives of the Framework ideally include all Philadelphia University students, Graduate and Continuing Education students will be either integrated into the existing plan, or will be addressed in separate plans, at a future date.

This plan is a University-wide Framework, and will not address specific information literacy objectives and outcomes peculiar to particular schools or divisions of the University. Individual schools are free to modify this Framework to better fit their individual needs. For example, individual schools may find that within their own curricula, great emphasis will be placed on some outcomes and not others. Or, it may be found that the suggested sequencing of the outcomes may not match the course requirements within certain schools and programs.

Modifications could take the form of either individual school plans, or appendices to this Framework, wherein the schools can state their own goals, objectives, or methods in greater detail.

Overview
Envisioned is a "tiered" instructional program, introducing increasingly advanced concepts and resources, as needed by the students at the time they need it, as they move from one year to the next. As the students progress, they will execute several re-iterations of the basics of information literacy. With each successive year, there would be a higher level of expectation that the end products created by the students will be increasingly sophisticated. In terms of resources used, complexity of concepts researched, the depth and scope of their treatment, and the overall mechanics of the writing, (if the assignment is a written one), instructors can expect to see students demonstrate increased proficiency in terms of information literacy performance indicators and outcomes. Faculty can choose the competencies particular assignments (by design) will emphasize. Perhaps several or even all of the competencies will be emphasized within a single assignment. The assignments faculty design can serve as the measure of whether or not these outcomes are successfully reached. Performance indicators might be better delineated by faculty and librarians together, and have not yet been included in this document.

Faculty must remain current with the availability and use of information resources and technologies. To this end, each librarian is a liaison with one of the Schools of the University; each librarian is willing to review with faculty suggestions for available resources appropriate to specific assignments. Each librarian is also able and willing to consult with faculty on the scope and potential uses of new resources acquired by the Library.

Objectives
Consultation of the ACRL Information Literacy Competency Standards for Higher Education and the stated information literacy outcomes of other colleges and universities has resulted in the following four university-wide outcomes for Philadelphia University:

1. Students will be able to identify and articulate their information needs
2. Students will develop a knowledge base regarding the major formats, delivery mechanisms, and organizational structure of information resources
3. Using this knowledge base, students will be able to identify and apply the resources and tools that are most appropriate for specific information problems
4. Students will demonstrate the ability to critically and ethically apply information

Using these institution-wide outcomes as a framework, individual schools within the University will be charged with identifying additional outcomes specific to their own curricula. Eventually, each school will identify the scope and degree to pursue certain outcomes, and devise the methodologies to help students achieve these outcomes in a relevant, discipline-specific context.

Assessment
Assessment measures and methods are best determined within the individual schools. Within a school, assessment may need to be implemented on a program-by-program basis, as the programs and concentrations offered within some schools are quite varied. Assignment design that includes attention to possible assessment measures and methods will reveal a number of options, each appropriate to the context in which an assignment is distributed or information need is defined.

Some suggested assessment measures could include:
- Portfolios of student work—traditional "creative" or design work, as well as written work—amassed during a time frame determined by the instructor
- Pre and Posttests (multiple choice, short answer, T/F)
- Written papers
- Oral presentations
- Capstone courses and projects (Thesis, L911, etc)

A website for faculty support and assistance with assignment design, including assessment, can be viewed at http://www.philau.edu.assignment

Information Literacy in the Curriculum at Philadelphia University

Suggested below are cross-curricular outcomes focusing on particular skills and competencies that are part of an operational definition of information literacy.

The framework for the outcomes includes:
- FINDING INFORMATION (Location and Access)
- EVALUATING INFORMATION (Critical Thinking)
- APPLYING and MANAGING INFORMATION (Ethics, Critical Thinking, Projects and Assignments)
- INFORMATION TECHNOLOGIES (Information Retrieval Tools, Information Management and Organization Tools, Information Creation Tools)

For a more comprehensive version of these outcomes, including example recommendations of each, please refer to the **Information Literacy Project @PhilaU** website, at http://www.philau.edu/library/infolit and click on the **Documents** link.

Freshman Year

Acclimation of students to the academic environment, college-level work, and the use of college-level research tools and resources are the goals of the first year. These suggested outcomes are intended at an INTRODUCTORY level.

- ***Learn what resources and services--both physical and virtual--are available via Gutman Library, with emphasis on the Library's website***
  Elements can include Library hours, staff contact information, E-Res, Media Services, Interlibrary Loan, current periodicals, Reference section, the online catalog, layout of the library and location of service desks

- ***Learn to use the online catalog effectively***
  Demonstrate understanding of the difference between a keyword and a subject search, how to view and interpret holdings information, how to place a hold on an item

- ***Use both print and electronic tools to locate and access information***
  At discretion of instructor. Print indexes and electronic indexing tools, or just electronic indexing and full-text online databases might be used, in addition to the online catalog of Gutman or other libraries

- ***Effectively use the internet for research: guided research of the internet***
  Instructor-provided and textbook-provided websites and Gutman Library Internet Resource pages can provide a guided introduction to the use of the internet as an academic information resource

- *Critical thinking and evaluation of information*
  Selection of appropriate information to apply to the information need, as articulated by the student, including critical reading, evaluation of printed and electronic information (websites) for credibility, authority and accuracy.

- *Ethical use of information, information resources and information technologies*
  This encompasses issues such as citation and documentation, plagiarism, passwords, downloading images and text from the Internet, and problems regarding mutilation / theft of library materials

- *Effectively use appropriate information technologies*
  Determined by course requirements and objectives. Instructors use a variety of tools at this level: e-mail, Blackboard CourseInfo, E-Res. Students use word-processing, spreadsheet and presentation software, some use online resources.

Sophomore Year
As research requirements increase, the Sophomore Year can serve as the entry into the broader spectrum of information resources and their use. Depending on major, this may also be an appropriate time to introduce "literatures" and "disciplines," in reference to information resources and their use. The skills reiterated from the Freshman year are expected to be met an INTERMEDIATE level in this, the Sophomore year.

- *Use Gutman's and other libraries' online catalogs to locate and access materials.*
  Students may need to gain familiarity with the various types of online catalogs used by other institutions, to obtain needed information. Students can also directly borrow from TCLC libraries, and place interlibrary loan requests, using information found in other libraries' catalogs.

- *Use both print and electronic tools to locate information*
  Tools determined by instructor. The online catalog of Gutman or other libraries, print and electronic indexes, ready-reference materials, either print or electronic, such as subject-specific encyclopedias

- *Perform online searching at a basic to intermediate level*
  This outcome pertains to both the mechanical and conceptual aspects of online information retrieval: generating search statements, Boolean logic, field searching

- *Effectively use the internet for research*
  Guided research and transition to independent research utilizing the internet as an information resource. Use general and specialty search engines, resource pages, and directories. Use advanced features of search engines

- *Comprehension of disciplinary literatures**
  Minimally: at an introductory level, if not done so in the Freshman year. Certain majors may have prior experience. How is information typically communicated, stored, managed, accessed and retrieved in one's discipline.

  *The movement of Writing Seminar II from the Junior to Sophomore year will impact this outcome. In Fall 2006, all students in Writing Seminar II will be Second-year students. These students will explore disciplinary literatures to a depth previously expected of Juniors

- *Critical thinking and evaluation of information*
  Evaluation of Web-based information, comprehension the difference between the Internet and online, fee-based information resources, the difference between popular and academic or scholarly types of information

- *Ethical use of information, information resources and information technologies*
  Citation and documentation, privacy, security, regard for policies and procedures pertaining to the use of information technologies and resources

- *Effectively use appropriate information technologies*
  Determined by course requirements and objectives. Students may already be using discipline-specific technologies at this level

Junior Year
Basic Research Skills should be at an INTERMEDIATE to ADVANCED level by the end of the Junior year. Stressed in the Junior year are critical evaluation and application of information, and the development of greater skill in using information location, access, and management tools. Librarians and Instructors can also spend more time to introduce and demonstrate the effective use of new and/or appropriate information resources.

- *Use other libraries' online catalogs to locate and access materials*
  Interpret holdings information in other library catalogs, understand how to use Interlibrary Loan services

- *Expand comprehension of the literatures of their fields and professional communication within their fields*
  Actively contributing to the discourse and professional activities of their future professions is emphasized.

- *Exhibit an increased knowledge base of disciplinary resources and their use*
  Students will increase their knowledge base of professional sources of information within their intended future careers, and the disciplines associated with these careers. Students will increase their knowledge base of resources used for Humanities and Social Sciences research, for completion of College Studies requirements.

- ***Exhibit increased sophistication in use of the free (public) web for research***
  Distinguish when and if the Internet is as an appropriate information resource, use listservs appropriate to future careers, use specialized Web tools such as portals, directories, specialty search engines and deep web tools

- ***Demonstrate critical thinking and evaluation of information***
  The basics of these skills should, at this point, have become an automatic portion of the students' repertoire. In addition, demonstration of integrative learning and transferability of skills and previous knowledge should be evident in student work at this level, with less external prompting from faculty.

- ***Ethically use of information, information resources, and information technologies***
  Citation and documentation, observance of copyright, security and privacy, regard for policies and procedures pertaining to the use of information technologies and resources

- ***Special related technology skills***
  The technology skills outlined in the Freshman and Sophomore years should be mastered and consistently applied at this point. Additional technology requirements will vary according to school and program

Senior Year
The senior and fifth are used as a refinement and fusing of the skills and abilities acquired in previous years. Some programs and schools have capstone courses and projects in place and under development. These courses are valuable to the assessment of targeted IL skills.

The students at this level would be expected to:

- Possess the basic abilities to use the information management and access/location tools, so that Instructors and Librarians can concentrate on showing students how to use the tools more efficiently and effectively
- Know how Library-based resources are organized and accessed
- Access and locate and retrieve information in various formats specific to their major fields of study
- Consistently apply critical thinking and evaluation skills as they find and gather information, regardless of format
- Produce a sophisticated end-product by effectively applying the information they have found
- Consistently behave in an ethical manner regarding information, information resources, and information technologies
- Use appropriate technological tools to organize, manage, store, retrieve and present information

Appendix A
Associated Technological Competencies

The Computer Science and Telecommunications Board devised the following lists of "Top Ten" elements pertaining to each of the three domains of "FITness"—or "Fluency with Information Technology." These lists may serve as a guide in the delineation of the technological aspects of the information literacy outcomes Philadelphia University would like students to achieve and exhibit upon graduation.

Full-text versions of the publication "Being Fluent with Information Technology" is available at *http://bob.nap.edu/html/beingfluent/* (HTML) and *http://www.nap.edu/books/030906399X/html/* (Open Book)

Intellectual Capabilities for FITness
1. Engage in sustained reasoning
2. Manage complexity
3. Test a solution
4. Manage problems in faulty solutions
5. Organize and navigate information structures and evaluate information
6. Collaborate
7. Communicate to other audiences
8. Expect the unexpected
9. Anticipate changing technologies
10. Think about information technology abstractly

Fundamental Information Technology Concepts
1. Computers: Elements of computational tasks (i.e.programs as a sequence of steps)
    Basic internal components of a computer (i.e.memory)
    Basic external components of a computer (i.e.I/O devices)
2. Information Systems (PPDSH, IPSOC, security/privacy)
3. Networks (LAN, WAN, client/server, protocols, standards, network services)
4. Digital representation of information
5. Information organization (indexing, storage, searching, retrieving, evaluation, citation)
6. Modeling and abstraction
7. Algorithmic thinking and programming
8. Universality
9. Limitations of information technology
10. Societal impact of information and information technology

Contemporary (for 1999) Information Technology Skills
1. Setting up a personal computer
2. Using basic operating system features
3. Using a word processor to create a text document
4. Using a graphics and/or artwork package to create illustrations, slides, or other image-based expressions of ideas

5. Connecting a computer to a network
6. Using the Internet to find information and resources
7. Using a computer to communicate with others
8. Using a spreadsheet to model simple processes or financial tables
9. Using a database system to set up and access useful information
10. Using instructional materials to learn how to use new applications or features