

ABSTRACT: 2013 ELAM Institutional Action Project Poster Symposium

Project Title: Development, Implementation and Strategic Utilization of a Campus-Wide Graduate- and Postdoctoral-Student Information System (GPSIS)

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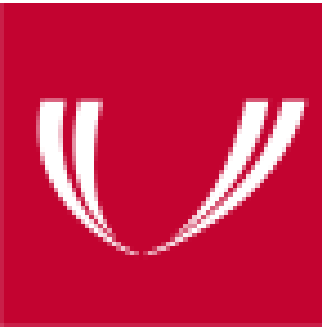
Collaborators: Laura D. Bilek, Ph.D. (Medical Sciences Interdisciplinary Area Graduate Program); Teresa A. Vadovski (Graduate Studies Office); and Lee R. Trant (IT Application Services). **Mentor:** H. Dele Davies, M.D. (Vice Chancellor for Academic Affairs)

Background, Challenge or Opportunity: Discussions at the UNMC Graduate Studies strategic planning retreat held in August 2012 revealed the need for a central repository of information related to our applicant pool, students, alumni, and faculty mentors. Such information is necessary for preparing NIH training grant applications (which are highly data-intensive), for ensuring that students progress through degree programs at an appropriate pace, for tracking graduates as they move forward in their careers, and for program evaluations.

Purpose/Objectives: The objective of this project was to facilitate the training of graduate students and postdoctoral fellows in the biomedical sciences by developing and implementing a central database for tracking their training at UNMC and their subsequent career development.

Methods/Approach: Potential stakeholders were queried about the desired capabilities of a central student database. The VC for Academic Affairs spread enthusiasm for the project across all levels of campus leadership. Workshops organized by the Council of Graduate Schools provided insight from the experiences of other universities in establishing a student database. Stakeholders provided a comprehensive list of data fields that would be useful to include in the database. Routine meetings among the collaborators fueled the development process, with IT staff working behind the scenes to set up the tables, design the user interface, write code, etc. A special web server was set up for the developers to use while working in the production mode.

Outcomes and Evaluation: Multiple stakeholders were identified – not only graduate program directors and staff, but also diverse groups such as the alumni office, the library, and the UN Foundation. Accordingly, strong support was evident across the campus. More than 800 hours (primarily IT staff time) have been devoted to this project. The database is being created to interface with existing resources (PeopleSoft, a “parent” campus database, etc.). Specific data captured daily from these resources, as well as an array of newly-developed electronic forms to be submitted by students during their training, will populate a Microsoft SQL database (to allow marketing the system to other universities) for creating the GPSIS data tables. The data will be accessible via a secure website, with different levels of access provided to specific stakeholders, as appropriate. GPSIS will be searchable, and standard queries are being developed for generating training grant tables. Mock-ups of the website are available, and the detailed information to be provided under each ‘tab’ and pull-down menu is currently being established. It is anticipated that the graduate student component of the system will be ready for beta testing in April/May, and will be implemented by the beginning of the fall 2013 semester.



Development, Implementation and Strategic Utilization of a Campus-Wide Graduate- and Postdoctoral-Student Information System (GPSIS)

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Challenge / Opportunity

Discussions at the UNMC Graduate Studies strategic planning retreat held in August 2012 revealed the need for a central repository of information related to our applicant pool, students, alumni, and faculty mentors. Such information is necessary for preparing NIH training grant applications (which are highly data-intensive), for ensuring that students progress through degree programs at an appropriate pace, for tracking graduates as they move forward in their careers, and for program evaluations.

Objective

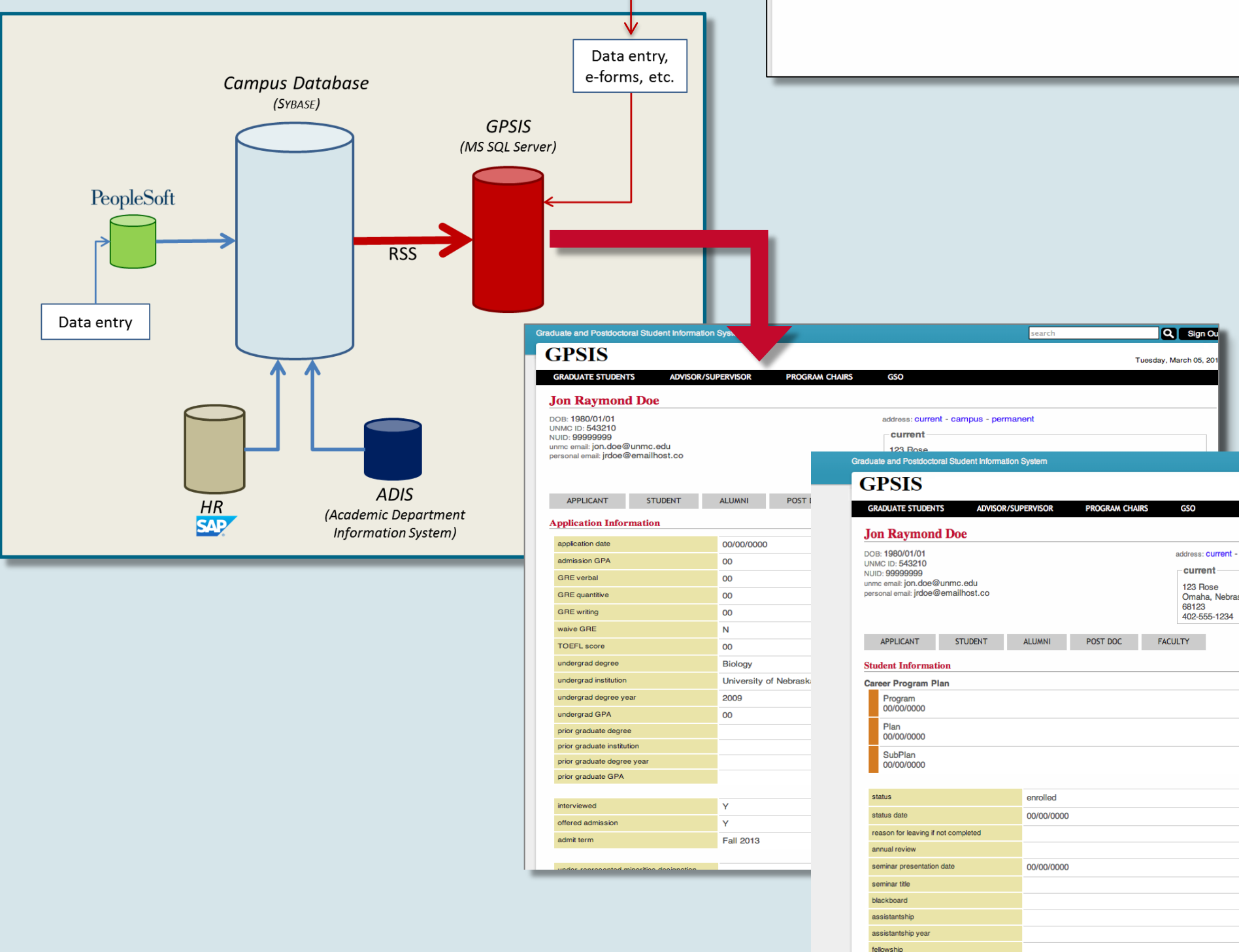
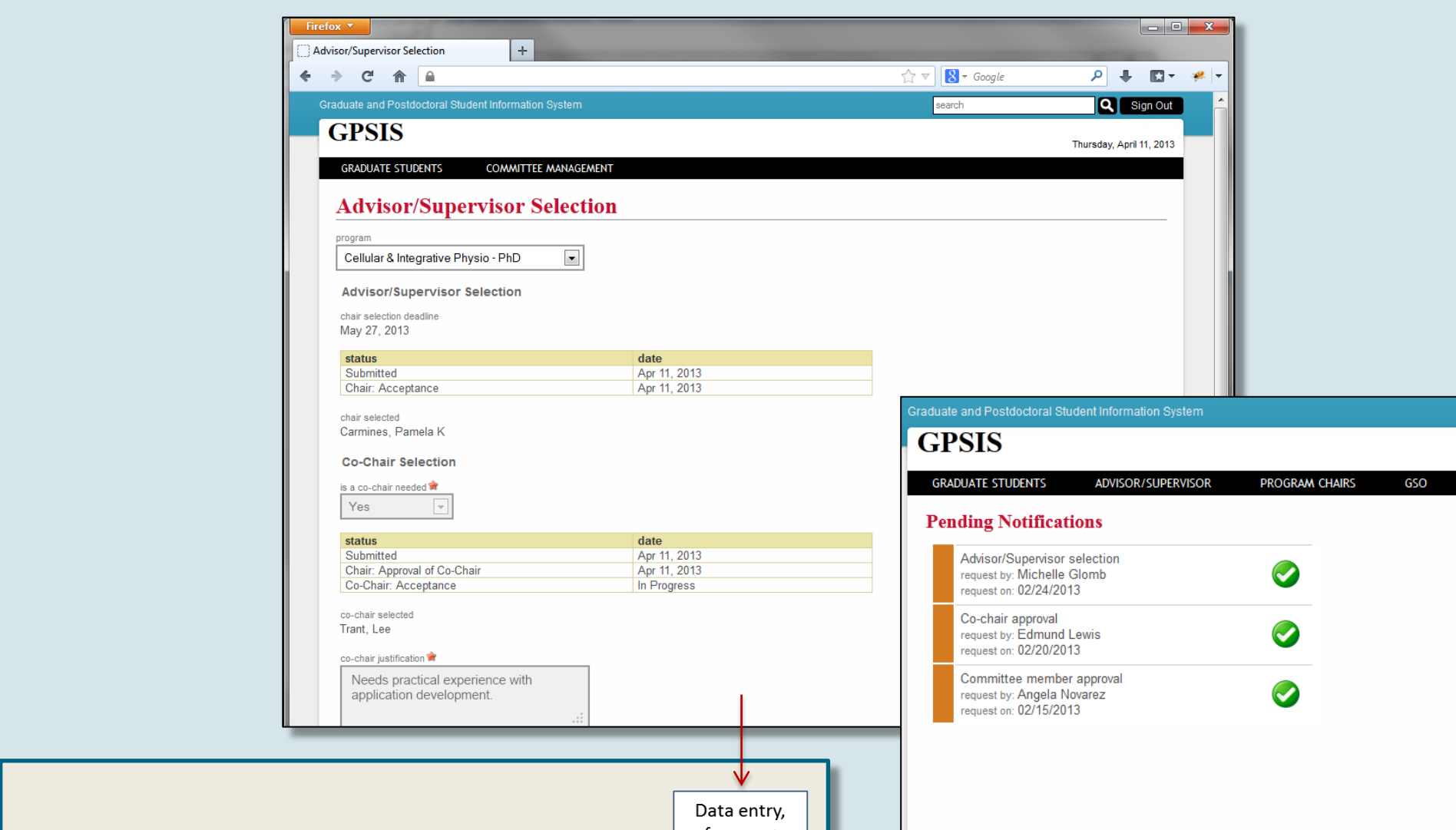
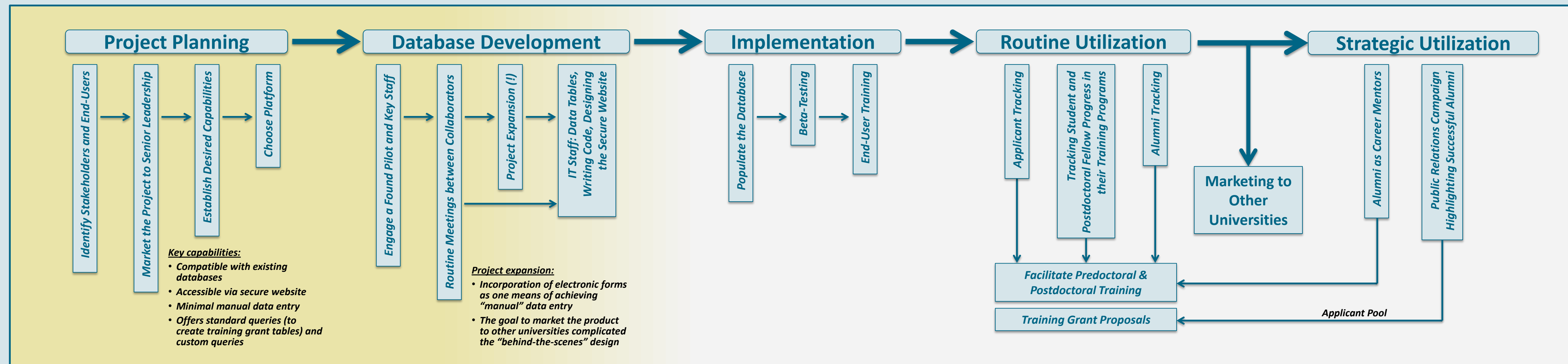
The objective of this project was to facilitate the training of graduate students and postdoctoral fellows in the biomedical sciences by developing and implementing a central database for tracking their training at UNMC and their subsequent career development.

Approach

- Potential stakeholders were queried about the desired capabilities of a central student database.
- The Vice Chancellor for Academic Affairs spread enthusiasm for the project across all levels of campus leadership.
- Workshops organized by the Council of Graduate Schools provided insight from the experiences of other universities in establishing a student database.
- Stakeholders provided a comprehensive list of data fields that would be useful to include in the database.
- Routine meetings among the collaborators fueled the development process, with IT staff working behind the scenes to set up the tables, design the user interface, write code, etc.

Found Pilot

The Medical Sciences Interdisciplinary Area (MSIA) Graduate Program is the largest graduate program on campus, with 98 students spread across 16 departments/programs. Because of its unique nature, the MSIA program leadership had already built a Microsoft Access database for tracking student progress toward the degree objective, and for communicating with students, their mentors, and Supervisory Committee members. The MSIA graduate program director (L.D.B.) brought to the project substantial experience with the extent of flexibility that GPSIS would have to accommodate, as well as the breadth of program-specific degree requirements that exist across the campus.



Outcomes, Evaluation & Discussion

- Multiple stakeholders were identified, including M.S. and Ph.D. students, postdoctoral fellows, graduate program directors and staff, the Alumni Relations Office, the McGoogan Library of Medicine, and the University of Nebraska Foundation.
- More than 900 hours (at least 87% representing IT staff time) have been devoted to this project.
- GPSIS is being designed to store and retrieve data from a variety of existing resources (PeopleSoft, SAP, and the Academic Department Information System) that feed into a "parent" campus database.
- In order to minimize manual data entry, a series of e-forms is being developed (replacing paper forms) for submission by each student, and approval by appropriate individuals, at various steps in his/her academic career. Information input via these forms will populate some fields in the database.
- The goal of marketing the system to other universities complicated the job of IT application services staff. The decision to build GPSIS as a Microsoft SQL database reflects the need for the system to have flexibility with regard to the existing database platform(s) utilized by a particular university.
- Data stored in GPSIS will be accessible via a secure website, with different levels of access provided to specific end-users, as appropriate. GPSIS will be searchable, and standard queries are being developed for generating training grant tables. Mock-ups of the website are available, and the information to be provided under each 'tab' and pull-down menu is currently being established.
- The impact of the project cannot yet be fully evaluated, but is likely widespread given the multiple stakeholders. At a minimum, the availability of GPSIS will facilitate multiple aspects of graduate student and postdoctoral fellow training at UNMC.

Conclusion & Future Directions

GPSIS is a work-in-progress. It is anticipated that major aspects of the graduate student component of the system will be ready for beta testing this summer, and will be implemented during the fall 2013 semester. Postdoctoral and alumni tracking functions lie further down the road, with the latter representing a key opportunity for strategic exploitation of this tool.