

CONTEXT FOR ANALYSIS

(7C1) Collecting, storing, and accessing information:

Northwood collects information about students and stakeholders, faculty and staff, financials, technology, and strategies from all Operating Units and stores it so that it can be accessed by authorized individuals for purposes of review, modification, analysis, and reports. Northwood's Information Technology (IT) department uses many software applications that enable data tracking and data mining. IT is tasked with electronic data storage and security. The three primary collection and storage systems for centralized, electronically stored information are Colleague®, Blackbaud®, and the Blackboard® Academic Management System. **Figure 7-1** displays our IT Data Management Model.

Specific data collection and storage systems include, but are not limited to:

Colleague (Datatel): This central integrated system eliminates duplicative entry of information and enables extended information management, access to users across the campus, and

reliable data extraction and reporting. The database is a secure, password-protected, confidential system with access through the intranet. It is Northwood's central administrative information system that allows the system-wide collection and storage of data on:

- prospective/applicant students (demographics, course of study interest)
- students (demographics, courses, programs of study, transcripts, and contact information)
- personnel (payroll, benefits, demographics)
- finances (expenditures and revenues), budgets

WebAdvisor (Datatel) is used by prospective students, students, faculty, and staff through the portal to access admissions status, view financial aid, verify documents are received, check for and register for classes, view grades, check rosters, view budgets, Human Resource data, payroll, budget, and webtime entry for hourly employees. Transactions and information entered through WebAdvisor and via My.northwood.edu are integrated with and reflected in Colleague.

Active Admissions allows electronic scheduling of campus visits, gathers prospective interests and demographics, and provides online application with integration into Colleague

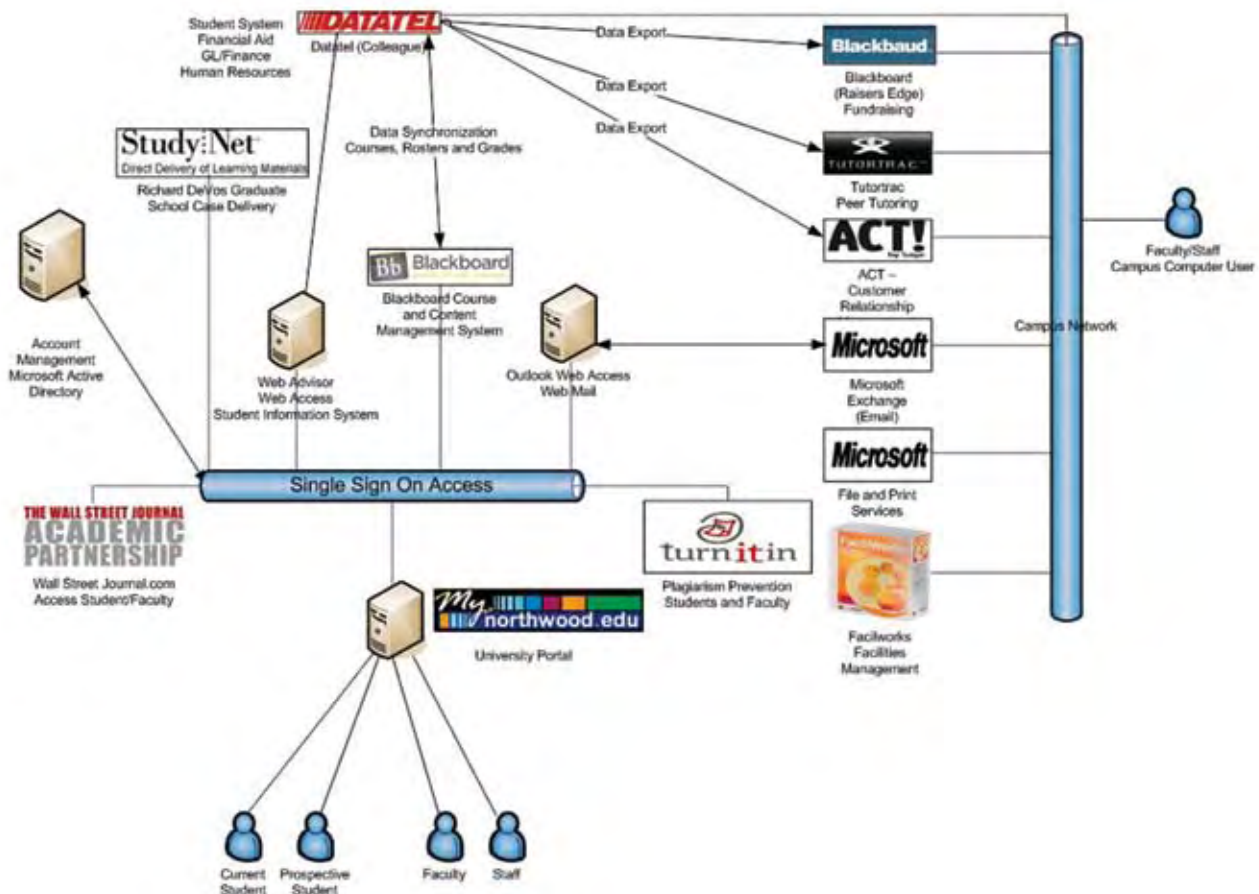


Figure 7-1: Northwood's IT Data Management Model

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Blackbaud (Raiser’s Edge® and Researcher’s Edge™): Used to track alumni and donor information and also provides for online giving.

Blackboard Academic Management System: Comprised of three critical systems that together help create a unified academic management portal allowing for single point of access.

- The Blackboard Learning System is web-based software that offers course management capabilities and a scalable design that allows for integration.
- The Blackboard Community System (also known as My.northwood.edu) provides portal technology and allows for the integration of various web-based services, applications, and information. It serves as the main portal for most student and staff-related administrative matters (i.e., financial information, term course information and scheduling, webmail, WebAdvisor) and as the gateway to access other My.northwood.edu services. The portal is a secure password-protected, confidential system located on the web.
- The Blackboard Content System is a fully integrated content management system that enables the easy sharing of files and information across every course, Operating Unit, and department within our institution.

- **Track-It:** A database used by IT to track requests and report on productivity.
- **CBORD:** Creates ID cards and tracks money on the cards.
- **Artisan-Pro:** A software system designed for art gallery use.
- **FileMaker Pro:** A database used by Creative Services to track projects that are being designed for print, web, and promotional items.

Extensive secure paper and electronic files are also maintained by every functional unit: Advancement, Academics, Libraries, Student Services, Athletics, Career Services, Financial Aid, Business Office, Admissions, and the Provosts. In addition to the Post-Graduate Survey, several assessment instruments have been administered including the Senior Outcomes Survey, Course Evaluations, Public Speaking Assessments, Sophomore and Senior Essays, and more recently the National Survey of Student Engagement (NSSE), and the Noel-Levitz assessment for adult learners. The Associate Dean of Institutional Research and Assessment maintains these instruments. Each Operating Unit collects extensive data generated by many departments and stored in secured spreadsheets.

Data accessibility is crucial to efficient and effective operations at Northwood University. Colleague data access is restricted by permissions. Direct access is limited. Requests are made to the manager who is responsible for evaluating the need and ultimately disseminating the analysis and reports. Passwords protect the intranet, WebAdvisor, and Blackboard as it allows student and faculty access to personal and course information. A Module Leader manages the data for their area and makes sure privacy laws (FERPA and GLBA) are observed.

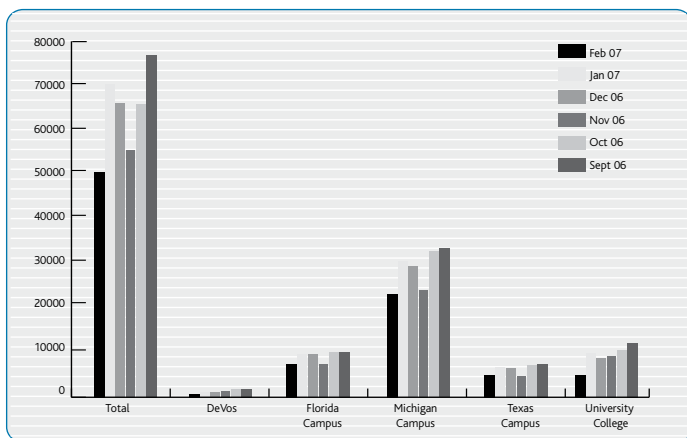


Figure 7-2: Blackboard Use History

Other software and/or systems address special needs.

For example:

- **eRecruiting (Lawson Software):** A tool for students and alumni seeking career assistance.
- The Career Assistance and Web Services teams designed and administered a **Post-Graduate Survey** that identified the employment status of recent graduates. The Career Assistance Director manages that data and provides a report to the BOT in May (**Figure 3-11**).

(7C2) Key institutional measures:

Multiple institutional measures are used for tracking effectiveness across the system (**Figure 7-3**). These measures (the Northwood Scorecard) represent a new process for us and we will monitor and refine it over the next several months.

PROCESSES

(7P1) Selecting, managing, and using information:

Historically, Northwood selected data based upon Operational Unit preferences and overall reporting requirements. Management and use came both at the Central Administration and Operating Unit level. Central Administration measures revolved around enrollment and financials, while Operating Units addressed/used these two areas of measurement and other metrics that were unit centric. Accrediting and outside reporting measures were also a part of the management of measures. We

Outcomes Results (Figures 1-10, -11, -14, -15)
Graduation Rates (Figures 1-17, -18, -19; 2-6)
Graduates Working in Field of Study (Figure 1-20)
Student-Faculty Ratio (Figure 3-3)
EXCEL Engagement (Figure 2-7)
Student Retention Rates (Figure 3-10)
Admissions Progress/Goal: New Students, Freshmen, Transfer; Prospects, Applicants (Figures 3-9, 6-8, 6-9)
Enrollment Statistics (Figures 3-9, 2-9)
Class Size (Figure 3-4)
Student Satisfaction (Figures 3-12, -13, -14, -15, -16, -17)
Budget Performance (Figure 6-11)
Financial Aid Granted (Figure 6-12)
Advancement Results (Figure 2-5)
Employee Satisfaction (Figure 4-13)
Retirement Planning (4C4 Text, Figure 4-9)
Employee Attrition Rates (4C3 Text)
Employee Healthcare Rebate Percentage (Figure 4-15)

Figure 7-3: Northwood's Scorecard (Key Institutional Measures)

have determined, through faculty and staff feedback and internal self-assessments, that a renewed emphasis is needed in the area of selecting, managing, and using information.

Data needs, currently, are determined by each department. If the information resides in Colleague or Blackbaud, users request information by contacting a University-designated Module Leader (Figure 7-4). Module Leaders represent departments such as Academics, Admissions, Advancement, Finance, Financial Aid, Human Resources, Business Office, and UC. The Module Leader approves the request then supplies the user with a saved query or he/she forwards the request to the IT Help Desk. This process provides a framework for selecting, managing, and using information and data at the institutional, Operating Unit, and departmental levels.

Generally speaking across all operations, academic information (e.g., grades, placement testing) is used to place students in appropriate level classes where they can learn most effectively. Faculty input also identifies students who need additional support. Student surveys and learning assessments provide opportunities to gather and manage data from our student stakeholders. Undergraduate Deans monitor the placement of

students in developmental education English and Math courses, their performance, and completion rates. Analyses of these data enable Northwood to make decisions about needed program modification. Regarding faculty evaluation data use, students complete a faculty evaluation for every course each term and the data are used by Deans, chairs, and faculty to discuss opportunities for improving teaching and learning efforts. These data are also considered in reappointment and promotion.

To this point, the University's 12 Outcomes and other key data sets at the central level have been used in limited fashion. We are undergoing a zero-based institutional research review and plan on having that completed by the time this Portfolio is submitted to AQIP appraisers.

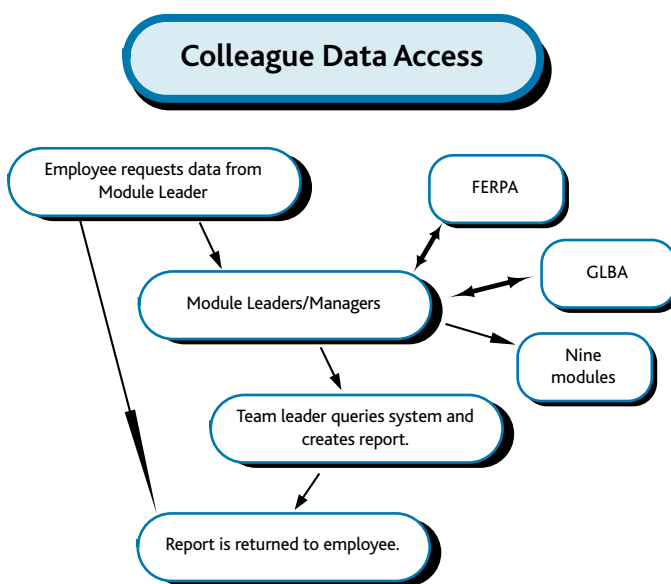


Figure 7-4: Access to the Colleague Database

With the many organizational changes currently being implemented comes the move toward an institutional scorecard/dashboard system. The system starts with the premise of Officers selecting measures for which they are responsible for in managing their unit portfolios. Over time, departments will be selecting key measures as well. Further, the system will be aligned with the newly implemented Northwood's Strategic Planning Process (NSPP, Figures 8-3, -4, -5, -6).

(7P2) Determining departmental needs for information and data collection:

Individual departments and units at Northwood identify their needs for data and information based on both external and internal requirements. Informational needs are frequently de-

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terminated by accrediting bodies, program review activities, and program policies.

Internally, Northwood determines its needs for information and data collection, storage, and accessibility based on administrative requests, institutional teams requesting data and providing feedback, needs expressed by departments and units, and requests for data beyond those tracked and published. Department representatives often work collaboratively with administration, Institutional Research, and campus registrars to provide data for use at department or unit levels.

A challenge for Northwood is institutionalizing a process for determining informational needs across the system. Our move to a scorecard system and the zero-based institutional research process will help us address this during the fall and winter months of 2007 and 2008.

(7P3) Determining needs and priorities for comparative information and data:

Key sources of external comparative data are regional and state educational associations. Like most other institutions of higher education, Northwood completes a full set of Integrated Postsecondary Education Data System (IPEDS) reports. The datasets are comprehensive and allow detailed comparisons to other institutions across many criteria. Use of IPEDS comparatives is limited.

Since joining AQIP, we have recognized a need for comparative data selection and use. We have made inroads within the areas of student engagement and satisfaction. Northwood participates in the National Survey of Student Engagement (NSSE, **Figure 3-13, -15, -17**) as well as the Council for Aid to Education (CAE), a national nonprofit organization focused on improving quality and access in higher education. This survey was administered in the spring of 2006 and again in the spring of 2007. Further, UC administered a Noel-Levitz Adult Student Priorities survey in the spring of 2005 to all current UC students to assess student expectations and satisfaction. This survey was chosen, in part, because it allowed UC comparatives to other degree programs in eight areas including Academic Services and Instructional Effectiveness. This survey was repeated in 2007 (**Figure 3-13**).

While we are planning on moving toward a systematic process for selecting and using comparative data, our first priority is to insure we identify key measures and use these appropriately.

(7P4) Analyzing and sharing information and data regarding overall performance:

The institution analyzes and shares performance data through formal and informal processes, including reports for IPEDS, the Higher Learning Commission Accreditation Report,

the Department of Higher Education, legislative requests, annual reports, and program reviews. Interdepartmental committees, with administrative support, prepare and disseminate these reports.

Informally, Northwood shares information across the system through a series of meetings, workshops, forums, and reports. The institution is undergoing a shift in use and sharing of data and information and **Figure 7-5** depicts initial key methods of sharing.

It should be noted that the organization has recently reshifted responsibilities within the area of the Executive Vice President so as to better serve the institution regarding collection, use, and analysis of data and information. We have tasked the Associate Dean of Process Management, Analytics, and Academic Records as well as the Associate Dean for Institutional Research and Assessment as being the leads in this area.

- Most leadership team meetings are now beginning with review of results as the lead agenda item.
- The President's Weekly Messages communicate performance results.
- Teams are being asked to post pertinent results on Blackboard.
- The Scorecard process is highlighting the use of results.

Figure 7-5: Sharing of Data and Information

(7P5) Ensuring analysis of information and data aligns with institutional goals:

As we fully implement our NSPP, institutional goals will be more fully and formally articulated. The maturing use of Scorecards will allow us to align analysis of information and data with emerging goals and strategies. At present, Operating Units provide reports to the BOT at least three times per year to ensure activity aligns with the University's objectives. Analyses also take place in committees described in Category 4 (e.g., Academic Management Council, Curriculum Council and Curriculum Committees, Deans' Council, and Operating Unit Leadership Teams).

(7P6) Ensuring effectiveness of the information system and related processes:

Northwood's IT department handles all technical aspects of the information systems process and activities. Each Operating Unit ensures there are checks and balances in place to monitor data integrity as well as the use of confidential information contained in Northwood's systems. Cross referencing, for example,

which takes place between the Registrar and Admissions departments helps ensure the integrity and reliability of Northwood's data.

Faculty and staff offices, as well as student computer labs and classrooms, are equipped with PC platforms. Most user machines are on a three-year replacement cycle to keep pace with technology changes and upgrades. Each user machine is equipped with a standard set of personal productivity software applications. IT maintains and upgrades all hardware and software University-wide. (The only exception to this are the Macintosh computers owned and maintained by the University's Creative Services department, under the Vice President of Marketing and Enrollment Management.) Administrative software applications are made available to individuals based on job function and the approval of supervisors. Application servers, which support the organization's main information systems, are located and supported by IT. All facets of My.northwood.edu are developed, supported, and managed by IT. IT also manages all wireless functionality on each campus. Each main campus has wireless Internet functionality in classrooms, labs, student housing, and many student common areas.

The data associated with Colleague are protected by IT, which has policies in place with complete backup and recovery plans in case of disaster. Testing of data is performed randomly to ensure that information backup is completed correctly. The University network is protected by a password system and has different levels of access granted by the IT department. To gain access to the network, all users must sign an agreement to abide by rules and guidelines set up by the University. Network administration is responsible for granting and revoking authority through the use of a campus-wide directory where this authority is stored. IT has strict policies in place for Northwood's systems and data protections including: backup and recovery; acceptable use; computing resources usage guidelines; data privacy; and spam. Server activity and web traffic are monitored daily for threats such as viruses and external assaults on our systems.

Hard copy records (paper files) are kept in locked storage files. Additionally, Northwood abides by the policies laid out in the Family Educational Rights and Privacy Act (FERPA) as well as the Gramm-Leach Bliley Act (GLBA) for confidentiality and security of information.

The IT department participates in Educause, a nonprofit association whose mission is to advance higher education by promoting the intelligent use of information technology. Industry standards and best practices gained from this association are an indispensable source of ways to improve and stay current in the IT field.

(7P7) Measuring effectiveness of the information system:

We use general indicators to understand the IT system as well as institutional research performance. These include Help Desk calls, IT Support Logs, and timeliness of reporting to external bodies and for internal purposes. While, there is no formal process yet in place to track the effectiveness of Northwood's IT and overall measurement system, we are asking IT to gather and track system-wide performance indicators. Further, Institutional Research will be developing measures of effectiveness, including user satisfaction with information and data.

RESULTS

(7R1) Results related to measuring effectiveness:

Our IT system architecture has grown dramatically since 2002. The changes have improved Northwood's ability to define initiatives, act upon them, and continually monitor and accept feedback regarding system quality. For example, the recent implementation of My.northwood.edu provides a user-friendly, online system used by students, faculty, and staff to access a wide variety of information.

As mentioned, Northwood is in the process of developing protocols for our measurement system that assess such things as system accessibility, timeliness, usefulness, accuracy, reliability, and meaningfulness of data, and data-user satisfaction.

The Northwood IT department staff focuses on reliability of the systems. Both the Production System and the Test System of the Datatel Colleague Software are consistently monitored as shown in **Figure 7-6**. If unscheduled maintenance is required, all users are notified via Blackboard regarding the downtime – when the system will be going down and the approximate length of downtime. The production system is down for backup every morning for approximately 45 minutes. Each month, Colleague is patched the Thursday following the second Tuesday of the month. The dates and times are approved by the Colleague Module Leaders in advance of the outage. Any systems upgrades are also approved by the Module Leader Team and great care is taken to schedule around academic activity.

In the last year, our online services (WebAdvisor) have been extremely reliable, as unscheduled outages occurred only twice and lasted less than two hours each.

The average overall Uptime, including planned outages, of network connectivity to all locations is 99.67%.

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Figure 7-6: Regular Monitors within Production and Test Systems

(7R2) Comparing results with other institutions of higher education:

As we solidify processes regarding the effectiveness of our system, our intent is to compare to similar effectiveness measures of peer institutions.