

# Results of a National Survey on Technology in Academic Advising

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*The results of a fall 2002 national survey conducted by the National Academic Advising Association (NACADA) in cooperation with the NACADA Technology in Advising Commission concerning the uses of technology in academic advising are discussed. Summaries of the multiple choice responses and open-ended questions as well as recommendations for the development or modification of NACADA programs and services are provided.*

**KEY WORDS:** computer-assisted advising, Internet, NACADA survey of members, NACADA Technology Commission, research

In the fall of 2002, the National Academic Advising Association (NACADA) administered a Web-based survey to its members to assess their backgrounds and needs related to technology in advising. To guide the work of NACADA and the Technology Commission in developing programs and services for all NACADA members, the commission developed the Technology in Advising Survey.

The survey consisted of 21 items: 15 were related to members' use, knowledge, and availability of technology; 5 referred to demographic items; 1 was an open invitation for additional comments. The survey was available on the Web (as well as in paper format for those who requested it)

for 3 weeks. An E-mail announcement about the survey and several E-mail reminders were sent to all members of NACADA during the time the survey was available. A total of 818 of the approximately 6,500 NACADA members (National Academic Advising Association, 2003) responded anonymously to the survey. Preliminary results of the multiple choice responses from the survey were published by the NACADA Technology in Advising Commission (2003).

## Responses to Multiple Choice Questions

The technologies most commonly used by advisors on a regular basis in their advising role were E-mail (97%), Web browsers (91%), and word processing software (89%) (Table 1). The least commonly used technologies were assistive/adaptive devices, such as screen readers and Braille displays (1%), voice recognition software (2%), and instant messaging (10%).

Ninety-five percent of respondents said that they were very comfortable (64%) or fairly comfortable (31%) with the technology they must use in their day-to-day advising activities (Table 2). This high percentage may be skewed due to the nature of the survey topic and because the survey was administered via the Web; a paper version of the survey was also available, but no paper-formatted surveys were returned.

**Table 1** Technologies used by respondents on a regular basis in their advising role

Technology	%
E-mail (Eudora, Outlook, etc.)	97
Web browser (Internet Explorer, Netscape, etc.)	91
Word processing software (Word, WordPerfect, etc.)	89
Electronic calendar (Lotus Organizer, Outlook, etc.)	58
Spreadsheet software (Excel, Lotus 1-2-3, etc.)	51
Database software (Access, FileMaker Pro, etc.)	47
Presentation software (Freelance Graphics, PowerPoint, etc.)	45
Brochure/document editors (PageMaker, Publisher, etc.)	29
Web page software (Dreamweaver, Fireworks, FrontPage, etc.)	25
Course management software (Blackboard, WebCT, etc.)	21
Handheld devices (Palm, Visor, etc.)	13
Graphics software (Illustrator, Paint Shop Pro, PhotoShop, etc.)	11
Instant messaging (Instant Messenger, Netmeeting, ICQ, etc.)	10
Voice recognition software (NaturallySpeaking, ViaVoice, etc.)	2
Assistive/adaptive devices (screen readers, Braille displays, etc.)	1
No Response	<1

Survey respondents indicated that they want to learn more about Web page software (39%), database software (31%), graphics software (28%), presentation software (28%), and brochure/document editors and course management software (27%) (Table 3). Respondents were least interested in learning more about word processing software (2%), E-mail (3%), and Web browsers (4%). Because the least cited technologies were among the top three most commonly used by the respondents, one can assume that respondents feel comfortable using software, E-mail, and the Web.

The types of on-line academic information and services most commonly available to students at respondents' institutions are the college catalog (91%), grades (84%), and course registration (77%) (Table 4). While the percentages that reflect NACADA member institutions are unknown, the majority of students at the institutions of surveyed advisors appear to have access to on-line course registration and grade reports. This result indicates that students who do not currently receive these and similar on-line services will expect their institutions to provide them in the future.

The types of on-line academic information and services most commonly available to advisors at respondents' institutions are the college catalog (88%), grades (87%), course registration (81%), and transcripts (78%) (Table 5). Only 8% of respondents have access to on-line student identification photos, and only 30% have an on-line institution-wide advising handbook. Approximately one half of advisors (58%) and students (45%) also have access to on-line degree audits, a tool that is becoming increasingly more common and highly desired.

Slightly less than one half (46%) of responding advisors have access to an on-line roster of advisees (Table 6). Slightly more than one half (55%) have an easy way to communicate with all of their advisees simultaneously (through listservs, E-mail rosters, etc.) (Table 7).

Despite concerns about confidentiality, only 20% of survey respondents require students to use their institutionally assigned E-mail addresses when they request information from advisors via E-mail (Table 8). Seventy-two percent of respondents do not require the use of institutionally assigned student E-mail addresses. This finding indicates that

**Table 2** Respondents' comfort levels in use of technology in day-to-day advising activities

Level of Comfort	%
Very comfortable	64
Fairly comfortable	31
I just get by	3
I am not up to speed	1
No response	<1
Not at all comfortable	<1

**Table 3** Technologies respondents would like to learn more about

Technologies	%
Web page software (Dreamweaver, Fireworks, FrontPage, etc.)	39
Database software (Access, FileMaker Pro, etc.)	31
Graphics software (Illustrator, Paint Shop Pro, PhotoShop, etc.)	28
Presentation software (FreeLance Graphics, PowerPoint, etc.)	28
Brochure/document editors (PageMaker, Publisher, etc.)	27
Course management software (Blackboard, WebCT, etc.)	27
Handheld devices (Palm, Visor, etc.)	18
Spreadsheet software (Excel, Lotus 1-2-3, etc.)	16
Electronic calendar (Lotus Organizer, Outlook, etc.)	12
Voice recognition software (NaturallySpeaking, ViaVoice, etc.)	11
No Response	11
Assistive/adaptive devices (screen readers, Braille displays, etc.)	10
Instant messaging (Instant Messenger, Netmeeting, ICQ, etc.)	10
Web browser (Internet Explorer, Netscape, etc.)	4
E-mail (Eudora, Outlook, etc.)	3
Word processing software (Word, WordPerfect, etc.)	2

**Table 4** On-line information and services generally available to students at respondents' campuses

On-line Information/Services for Students	%
Your institution's college catalog	91
Grades	84
Course registration	77
Financial aid information	74
Transcripts	61
Degree audits	45
Textbook ordering	41
Grade average calculators	31
Information about the student's assigned advisor	30
Institution-wide advising handbook	24
Advising appointment scheduling	8
Student identification photos	5
No response	2

**Table 5** On-line information and services generally available to advisors at respondents' campuses

On-line Information/Services for Advisors	%
Your institution's college catalog	88
Grades	87
Course registration	81
Transcripts	78
Degree audits	58
Financial aid information	49
Information about the student's assigned advisor	38
Grade average calculators	36
Advising appointment scheduling	33
Textbook ordering	31
Institution-wide advising handbook	30
Student identification photos	8
No response	2

approximately three fourths of respondents risk having their responses to advisee E-mail questions reach someone other than the advisee. This situation does not pose much of a problem when advisors respond to general questions, such as "Where can I find information about studying abroad?" but it could constitute a serious breach of confidentiality when advisors respond to more personal questions such as "Can you E-mail me a copy of my grades? My grade report must have gotten lost in the mail."

Approximately two thirds (64%) of respondents indicated that members of an office or working group at their institution are responsible for dis-

**Table 6** Respondents' access to on-line/ electronic roster of assigned advisees

Access To On-line Roster	%
Yes	46
No	35
Not applicable	19
No response	<1

**Table 7** Respondents' ability to communicate with all advisees simultaneously via E-mail

Ease of Communication with Advisees via E-mail	%
Yes	55
No	37
Not applicable	7
No response	<1

**Table 8** Respondents' requirement for advisees to use institutionally assigned E-mail address

Advisees Required to Use Institutional E-mail	%
Yes	20
No	72
Not applicable	7
No response	<1

**Table 9** Institution-wide office/group responsible for academic advising technologies

Institution-Wide Group Responsibility	%
Yes	64
No	31
Not applicable	3
No response	2

cussing, recommending, or developing technology resources that support, at least in part, institution-wide academic advising (Table 9). While this seems to be a positive finding, some of the comments from the open-ended survey questions indicate that participants in these groups or offices do not necessarily ask for or take into consideration feedback from the advisors who will be using the technology.

When asked about the best delivery method for learning more about technologies and their impact on advising, most respondents indicated a preference for conference presentations/workshops (31%) and Web-based tutorials or Webcasts (27%).

**Table 10** Respondents' preferred delivery methods for learning about advising-related technology

Best Delivery Method	%
Conference presentations/workshops	31
Web-based tutorials or Webcasts	27
A specialized newsletter or mailing list	7
Special institutes	7
Campus visits by NACADA experts	6
<i>NACADA Newsletter</i> articles	6
Listserves, on-line chats, etc.	4
Videotapes/CDs	3
Another NACADA monograph	2
<i>NACADA Journal</i> articles	2
No response	2
Other	2

**Table 11** Respondents' second preferred delivery method for learning about advising-related technology

Second Best Delivery Method	%
Conference presentations/workshops	19
Web-based tutorials or Webcasts	18
A specialized newsletter or mailing list	11
Special institutes	10
Videotapes/CDs	8
Campus visits by NACADA experts	7
Listserves, on-line chats, etc.	7
<i>NACADA Newsletter</i> articles	7
<i>NACADA Journal</i> articles	4
No response	4
Another NACADA monograph	3
Other	1

Very few respondents stated that they favor *NACADA Journal* articles (2%), another NACADA monograph (2%), or *NACADA Newsletter* articles (6%) (Table 10). Respondents prefer an interactive and hands-on approach to learning more about technology.

A second choice of delivery method, special institutes (10%) and a specialized newsletter or mailing list (11%), was cited in addition to Web-based tutorials/Webcasts (18%) and conference presentations/workshops (19%) (Table 11). Respondents overwhelmingly prefer conferences and Web-based tutorials as the methods for learning more about technology, while very few prefer printed materials.

When asked the topics that must be addressed in any new monograph covering the effective use of technology in advising, respondents most fre-

**Table 12** Topics that must be addressed in any new monograph on advising technology

Most Important Topics	%
Advising notes (electronic)	54
Degree audits	48
On-line transfer credit evaluation/audits	48
Accessibility issues	48
E-mail (confidentiality issues)	48
Interactive advising Web sites	48
Electronic advising portfolios (student/advisor)	42
E-mail (managing it)	34
Appointment-scheduling software	34
Student information systems	34
Tips/tricks for using common software	33
Web surveys (evaluation of advising, etc.)	31
CDs (for freshman orientation, presenting info, etc.)	30
Using technology to advise distance learners	30
Electronic advising rosters	29
Electronic forms processing	27
HTML (developing Web pages for beginners)	25
Electronic documents (scanning/storing/retrieving)	24
Innovative uses of old technologies	20
Data warehouses	18
Handheld devices (PDAs)	13
Videoconferencing	10
Webcasts	9
Wireless communication	7
No response	6
Other	2

quently selected electronic advising notes (54%) as well as degree audits, on-line transfer credit evaluation, accessibility issues, E-mail confidentiality issues, and interactive Web sites for advising (all 48%) (Table 12). Respondents least frequently selected videoconferencing (10%), Webcasts (9%), and wireless communication (7%).

Over three fourths of the respondents to the survey indicated that they were female (76%). Twenty-three percent were male, and 1% made no response to the question of gender (Table 13). These figures differ from the NACADA-member demographic information (National Academic Advising Association, 2003) in which 65% of the general membership indicated they were female, 21% stated that they were male, and 13% made no response. Most respondents were between the ages of 31 and 40 or 51 and 60 years; however, the age bracket of

**Table 13** Respondent demographic information

Gender	%
Female	76
Male	23
No response	1
Age (Years)	%
Under 22	<1
22–30	14
31–40	34
41–50*	(n.a.)
51–60	35
61–70	4
Over 70	<1
No response	12
Role	%
Academic advisor/counselor	57
Advising administrator	29
Faculty advisor	8
Other	3
No response	2
Counselor	1
Staff assistant	<1
Institution Type	%
4-year public	63
2-year	19
4-year private	16
No response	2
Institution Size	%
Less than 2,500	9
2,501–5,000	11
5,001–10,000	19
10,001–20,000	23
20,001–30,000	18
30,001–40,000	10
More than 40,000	8
No response	<1

*Note.* \* Age range 51–60 years was inadvertently omitted from the survey. n.a. indicates that data are not available.

51–60 years was inadvertently omitted from the on-line survey. The majority of the respondents was comprised either of academic advisors/counselors (57%) or advising administrators (29%). This differs from NACADA general membership figures of 48% academic advisors/counselors and 27% advising administrators. Sixty-three percent were from 4-year public institutions, and 23% were from institutions with enrollments between 10,001 and 20,000.

## Responses to Open-Ended Questions

When asked what types of technology they regularly use in their advising role in addition to those listed in Table 1, respondents frequently included student information systems (such as PeopleSoft, SCT Banner, and Datatel), locally developed systems (computer programs, database files, etc.), telephones, fax machines, and voice mail. Less frequently mentioned but perhaps more interesting sources cited were pagers, digital cameras, electronic document-scanning systems, career assessment software, report-writing software, electronic bulletin-board forums, a ticket queuing system for walk-in advising, a fiber optic teleconferencing system, data warehouses, statistical software, streaming-video technology, case management software, ITV (multipoint distance-group advising), and a variety of locally developed software systems through which advisors perform various advising-related functions.

In response to a question about any other types of on-line services or information available to advisors in addition to those listed in Table 5, respondents frequently cited class lists, course schedules, advising rosters, advising notes, articulation information (transfer course equivalents), admissions information, placement test scores, addresses/phone numbers, drop/add history, “holds” information, and a variety of other student demographic data. Some respondents made the distinction between on-line information available via the Web versus via local, mainframe access. Several respondents noted that the on-line information available to professional advisors might not always be available to faculty advisors. Several respondents also indicated that while they do not currently have access to a variety of student records on-line, student information systems are currently being installed so that they will have access to electronic student records at their institutions in the near future.

When asked the other types of information that are available on-line to students in addition to those listed in Table 4, respondents frequently cited student E-mail accounts (including Web-based E-mail); admissions information/application; articulation information (transfer course equivalents); a variety of library services; Web-based courses, exams, and test results; billing information; financial-aid account information; customizable Web portals; schedules of classes; course drop/add processing access; campus directories; personal information updates (e.g., name/address change); graduation checkout; on-line advising (Web and E-mail); academic and advising information (Web

sites); high-speed Internet access in on-campus housing; career information and services; and course syllabi.

Some respondents also mentioned student access to on-line placement testing, housing information, tutor postings, late course drops and withdrawal processes, declaration of major processes, petition evaluations, PowerPoint presentations on a variety of topics, advising notes (entered by the advisor), 4-year plans, electronic forms that students can use instead of paper forms required for specific institutional processes, scholarship information and applications, personal Web space, on-line orientation, chat rooms, advisor assignment, electronic portfolios, a graduate-school dossier service, class rank information, registration holds information, video advising, internship search services, wireless access, and cell phone service. One respondent indicated that all students receive a laptop upon enrolling.

A few respondents indicated that either on-line access is unavailable for students or they were not aware of any such access for students. However, some respondents indicated that academic information will be available on-line to students in the near future, and some are at institutions where student information systems are currently being installed.

### Open-Ended Comment

When asked to provide any additional comments concerning their technology needs, respondents provided feedback about issues that can be summarized into seven broad categories.

#### *Institutional Training and Technical Support*

Some respondents indicated a belief that more institutional support is needed both for advisors and for students in learning to use new technologies and in mastering existing technologies, while others said that the amount of training needed/imposed takes time away from advising. One respondent wrote, "Technology is great and effective, but only if the whole community is using it and [is] well trained. At our institution, there is almost no attempt to provide training—we pick things up as much as possible on the job." Another wrote, "Technology is great, but it is essential that technical support be available [at all times] and reliable, for both students and faculty." Additional comments concerning the need for institutionally based support included the following:

At an institution where advising is faculty based, I am needed to develop opportunities for faculty to learn new technologies. Faculty devel-

opment in areas of technology and advising is not easy to accomplish. For an advising administrator to learn new technologies is one thing; to bring all advisors up to speed is another.

Other issues involve the lack of appropriate training for technology in advising [and] the lack of consistent and responsive technological support.

Better equipment, updated software, and more personnel to maintain our whole IT system are critical to properly assist students, faculty, and staff throughout our university.

It's important that any innovations be consistent and compatible with prevailing (user-friendly) software. By that I mean that IT people should not force non-technology people to use unfriendly software . . . but rather the software should be intuitive and menu-driven . . . so that it's used.

We have lots of advising technologies available, but students don't use them as much as they could. I believe that what's missing is ongoing training in how and why to use them.

[I] wish that administrators/supervisors would understand that it always takes time to use technology, even [if] it saves time in the long run (i.e., creating PowerPoint presentations for new student orientation, writing advisor notes on the database, or E-mailing students—even with simple answers).

One respondent wrote,

No one trains me in how to use/employ the phone in advising, and technology training has become equally ridiculous for anyone under thirty-five. Why do we need more integration of this nonsense? . . . We've already micromanaged our way from added efficiency to countless wasted hours in tech training and new uses of technology. I want to see students, not interface through E-mail. I despise my voicemail light. This is a good way of getting more responsibility with less compensation. I am the most tech savvy member of my office, so I am asked to fix everything that breaks because computing services help is not immediate. This just makes my students more neglected, [just] so someone else can plan their vacation online.

### *Exclusion of Advisors from Technology Planning*

A commonly heard complaint from advisors is the lack of involvement in planning and implementing new technology. The expressed concerns of several respondents are as follows:

My institution has a history of consulting everyone (e.g., the tech people or [people from] the Registrar's Office who don't do advising) except the advising community when they make decisions about technology, which we will have to use in advising.

At this institution, decisions pertaining to our computerized advising system . . . are made by non-advisors . . . without input from advisors. . . . We focus more on the technology than the advising.

My institution does not appear to recognize advisors' technology needs. I had to create my own advisee listserv from scratch and also create my own electronic appointment schedule. I had been repeatedly told that an on-line calendar [could not] be set up due, apparently, to security issues. I set one up on yahoo.com and it works great. We still do not have an electronic degree audit system in place campus-wide. I think the older faculty are hesitant to embrace technology. I receive nothing but positive feedback from my advisees regarding the listserv and electronic scheduling.

### *Funding/Availability Issues*

Several respondents expressed concern about the lack of (or inequities in) the availability of technology or technology funding. Their comments are as follows:

This campus is so deficient in technology that anything will help. In fact, my observation is that higher education in general is at least five years behind businesses in adopting technology. Here [we] are talking about wiring an old building when the rest of the world is going wireless.

We have been one of two campuses [implementing] PeopleSoft for the student database. Presently the students have more access to this information than we do, and it is quite frustrating. What we need for advising will likely not be fully developed for two years—to even replace what we had. We are supposed to have many more bells and whistles, but it will be a long, frustrating time coming.

Not all colleges at our University have the same access to technological resources. The Office of the Registrar and other administrative offices under the supervision of the University President are lagging behind and keep many at the university from continued technical development.

We are now in a climate where university resources are limited (budgets are being cut more than once in a fiscal year), while at the same time there is a greater emphasis placed on developing technologies in advising.

This University has not addressed many of these issues. Some individual colleges have, and that is a problem because then students don't know which college does what [when] they change majors. Much more of an effort needs to be put into developing campus-wide advising initiatives.

During this very difficult time of budget cuts, we will not be attending any conferences or purchasing any additional software or technology-type support.

One of the hardest things is when advisors identify a specific need that is a huge priority for us, but the resources can't be identified for a campus-wide upgrade. It's easier to get . . . departmental resources devoted, but then we're not provided consistent information across campus.

Technology is wonderful, but try telling that to the senior administrators who don't want to or feel they can't afford to upgrade the infrastructure for the staff.

Others expressed concern about "affordability for small colleges" and "keeping technology current in shrinking budgets."

### *The Role of Technology in Advising*

Some respondents questioned the role of technology in advising and expressed concerns about its effect on the advising relationship. Their opinions are delineated as follows:

The advent of E-mail advising has been a blessing, although it can sometimes cause lengthy discussions when a one-time meeting can address all of the student's concerns. E-mail works great for the quick questions, but some-

times a phone call or personal meeting can serve the student's needs much better.

I think it's interesting to ponder the long-term necessity of having advisors (or maybe how our roles as advisors will change) given the increased use of technology.

Although I was initially apprehensive about advising technology, I realize that it is coming and will play an integral role in future advising. With this in mind, I feel it is my obligation to my students and my profession to learn and try to use this technology to the best of my ability.

I oppose [allowing students to register on-line] without input from the advisor. If students can [register by] themselves, the advisors will never see them, and the students may not follow their program, thus prolonging their matriculation.

One respondent would like to see a "discussion on how the use of technology changes/improves the actual one-on-one advising exchanges."

#### *Distance Education/Advising*

A few respondents raised the specific issue of the use of technology in advising students at a distance. Their comments are presented as follows:

I would like to see information about use of technology for advising non-traditional students (whose jobs, families, etc., inhibit ability to access traditional advising). Steps and tips for setting up on-line advising, electronic rosters of advisees, etc., would be very helpful.

My main frustration is working with distance students who are not able to come to our campus. I feel that we try to hold their hands instead of [helping] them to become independent students.

I need to learn how to help students become oriented, [receive advising], and register from a distance.

#### *Professional Development*

Several respondents offered suggestions about how NACADA can provide professional development opportunities in the uses of technology in advising. Their ideas are presented as follows:

I don't believe that there is any need for NACADA to be involved in [training advisors

how to use software]—advisors can best learn how to use software locally, on their own campuses. However, NACADA could take a leadership role in defining best practices in the use of technology in advisement. Such national leadership is sorely needed to set standards.

[Are there any plans for] monographs or CDs on bringing non-technical staff and faculty up to speed?

A really basic hands-on interactive session would be excellent, separate from the national conference since we can't always [attend]. Maybe something we could link to . . . I want to learn more about making advising and technology connections.

Unfortunately, conference presentations generally discuss home-grown systems that are not necessarily applicable to my institution.

Most NACADA conferences "talk" about technology and advisement, but when you go to get real examples, you hear a lot of, "Well, it's something the IT folks do" or "I don't know how it works . . . one of the grad students put it together." If there are going to be special institutes, etc., they must be more than gabfests. Real technical information must be presented.

If you produce a monograph, then at least provide an interactive CD with it. Hand[s]-on is the only way to go with technology.

#### *Miscellaneous Comments*

The following, interesting, miscellaneous comments were also offered on the survey:

Our university purchased a . . . degree audit program many years ago, and from the first training session, we advisors said, "It'll never work for us." Because of the amount of money spent, the university has insisted that it *will* work and we *will* use it. . . . They've poured even more money into it, trying to make the changes necessary, [but] it still isn't correct for every student every time. I got an E-mail message just this morning about [yet] another workshop on the use of the degree audit system, and I don't care to go or ever hear about it again. There just does not seem to be any way to make it useable for

any student who has transferred or substituted a class or changed his/her major and has classes for which we've made exceptions. Unfortunately, that . . . includes most of our students.

What happens when technology breaks down? When everything is done electronically and the power goes out, I cannot work. Or when the systems are overloaded, I cannot work. We need to discuss backup plans or other storage plans for information. How does business handle this type of situation?

[I] don't want to learn more technology. Have too much to do now. Don't want to advise. Should be separate responsibility. Should have professional advisors so instructors can instruct. More responsibility should be put on students. We pander to students too much.

Advising needs to go back to a central source. Faculty are too busy to do it. Students used to register in a large ballroom. Now they come to the faculty advisors, and we don't have time. Someone else should do the advising. Let us get on with teaching and researching.

There is a push to deliver more services via technology to serve a particular segment of our student population, and this is good. However, that huge segment of our student population who will not read the information (i.e., the catalog, schedule, handbook, etc.) . . . but prefer to ask questions verbally demand a great deal of our time. Also, our institution cannot decide if advising should operate like a grocery store, where you can run in and get anything you want whenever you want it, or if we should operate as a professional office and offer specific services at specific times.

## Discussion

The results of this survey make clear that training (or lack thereof) is one of the key respondent concerns about the use of technology in academic advising. Other related issues concern lack of financial support, technical support, and time to learn and use technology effectively.

Although a number of respondents indicated that a monograph is not the best way for them to learn more about technology, respondents have definite ideas about the appropriate emphasis if a monograph (or a substitute, such as a CD) is produced.

## Recommendations

Based on the results of the National Survey on Technology in Academic Advising, the following recommendations for the National Academic Advising Association and the NACADA Technology in Advising Commission are offered:

1. If another monograph on technology in advising is developed, make it interactive by including a CD with the monograph. Alternatively, develop an interactive CD in place of a printed monograph or develop an interactive Web site that can be updated as needed.
2. Develop and provide live Webcasts on a variety of technology topics. Unlike videoconferencing, Webcasts do not require special equipment or studios. They can be viewed and heard by anyone whose personal computer is equipped with a Web browser and speakers. Webcasts have another advantage: They can be archived, so that advisors who are not able to participate in the live presentations can view them any time after the initial showing.
3. Offer hands-on training sessions, either at national/regional conferences or at special institutes. The commission would likely require data from another survey to determine the types of training sessions that would attract enough participants. If offered in conjunction with a national/regional conference, the training session(s) could be part of a pre- or postconference package.
4. Strongly encourage national and regional conference presenters whose sessions concern locally developed technology solutions to consider how these solutions can be adapted at other institutions. The presenters should explicitly include transferable information in their presentations and presentation materials. They (or copresenters) should be able to anticipate and answer the technical questions that may be asked at these conference sessions.
5. Continue to enhance the resources available on the Web site of the Technology in Advising Commission ([www.psu.edu/dus/ncta/](http://www.psu.edu/dus/ncta/)) especially Academic Advising Resources on the Internet, the Advising Technology Education Center, and the Student Information Systems project.
6. Develop a series of recommended technology standards for academic advisors so that program leadership can gauge the degree to which advisors have access to appropriate technologies, training, and support.
7. Encourage the members of the Technology in

Advising Commission and the Distance Education Advising Interest Group to collaborate on a project to examine and publish (on a Web site) best practices in the use of technology for teaching and advising distance students. Because the best practices for using technology to advise distance students could be applied to advising residential students as well, this project would have wide-reaching applications.

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### Author's Note

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