

● Leveraging the Information Age: ● Online Tools in the Teacher ● Credentialing Process

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As Executive Director of the California Commission on Teacher Credentialing, I am pleased to state that in California we are utilizing technology in almost every aspect of our teacher preparation and certification duties. The oldest of the autonomous state standards boards in the nation, the Commission was established in 1970 as part of a major education reform effort in California. The primary purposes of the agency are the design, development, and implementation of standards that govern educator preparation for the state's public schools, the licensing and credentialing of professional educators, the enforcement of professional practices, and the discipline of credential holders in the State of California. We accredit 87 colleges and universities with teacher preparation programs, administer over 50 different examinations, investigate over 8000 professional conduct cases, and process over a quarter of a million certification applications. Back in the 70s when the Commission was first established we issued those credentials with chisels and stone tablets—well, actually, we used typewriters.

I state these statistics not to impress you, though I suspect they will, but to give you an idea of the volume of work that the Commission's staff performs on an annual basis. To handle this workload we rely heavily on technology—technology to provide information to and collect information from our stakeholders, technology to streamline our licensing process, interactive technology to assist in our standards review, and technology to improve communications with future teachers and the public. I am here to outline our use of technology and provide you with our “lessons learned.”

The Commission on Teacher Credentialing is in the middle of a three-year technology project, entitled the Teacher Credentialing Service Improvement Project. This project is being developed in three phases. Phase one, which

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became operational during November 2001, allows the public, teachers and the Commission's stakeholders to look up a teacher's credential. The online system displays the type of credential the teacher holds, the authorization and term of validity for the credential, and any employment restrictions. Teachers and employers can also check the status of pending applications and view the history of previously held credentials. Here we make a distinction between teachers and employers and the public. We are able to share confidential information with the credential holder and the employer which we cannot share with the public. Our certification staff has already witnessed a reduction in the number of phone calls and faxes requesting verification of a teacher's credential and far fewer calls from reporters. This reduction allows our staff to devote more time to other phone calls and to the evaluation of credentials. During the month of September the lookup site experienced an average of over 1000 visitors a day.

Phase two of this technology project was launched in June 2002. After a few minor bumps, common in almost all technology projects, the process is now fully operational. This phase of the project allows teachers and other credential holders to renew their credentials and update address information online by a very simple process requiring just a few clicks and a credit card for renewal. Once the online renewal process is completed, the applicant receives an e-mail verifying that the renewal was successful. The Commission receives these data each night and processes it the next day. Within two days of the transaction, the applicant can view the credential on the online lookup site and can expect to receive it in the mail within five to six days. It takes the Commission fifteen days to process a renewal application submitted via the mail. The online renewal process allows candidates to renew a credential conveniently at home at any time. It has also been a boon to our certification staff who no longer need to enter data into our credential system or process checks. The Commission absorbs the credit card transaction fee. We believe we more than make up that fee in the reduction of staff hours needed to process an online application. In California we have Amazon.com, Safeway.com and, now, credentials.com.

Phase three of the Commission's technology project is the development of a new database with customer relations management software. The new system will provide a seamless approach to customer service that integrates telephone requests for information with credentialing and examinations, professional conduct, accounting, county offices of education, and colleges and universities. When the system is operational next year, a university will

be able to submit a credential recommendation electronically while the candidate uses an online application and payment process. The two files will be joined at the Commission and, if all information is submitted accurately, the document will be granted and mailed within a matter of days. Both the teacher candidate and the university will receive an e-mail notifying them that the credential was granted and giving the type of credential, a document number, authorization, renewal information, and validity dates. The county of employment will receive this information through an interface with the Commission. It currently takes our certification staff up to 75 working days to process an application. Once again, implementation of phase three of the project is providing both significant savings in resources and better customer service to our credential candidates.

Certification and professional practice data will be seamlessly displayed with Title II reporting information as well as examination information. One server in this system will be devoted to data reporting. You can imagine that in a state the size of California there are many requests for data from the federal government, the state legislature, county offices of education, reporters, and local school districts. Currently the state's Legislative Analyst's Office, called the LAO, is conducting a study to determine how much it costs to grant a credential. The LAO has requested data from two of our divisions. Our current computer system can provide the data, but assistance from our technology staff is required to extract it. This is staff time that is already fully allocated to other duties. The new system will allow staff to extract and analyze data without the help of technology staff.

Of course, it is always important to understand the data as well as know how to extract it. Understanding data reminds me of a brief story. An elderly woman was traveling with her elder daughter at a very slow pace on the interstate. The highway patrol officer pulled these women over and asked the driver why she was going so slowly. She told the officer that she was going the speed limit, as it was posted everywhere, the signs saying I 35. The officer said that, no, that was the number of the highway and not the speed limit. Then the officer noticed that the woman in the passenger seat looked disheveled and somewhat frightened, and he asked her if she was okay. The women told the officer, "I'm okay now—we just got off the I 205." As you can see, we have to be careful of how we interpret our information.

California administers a variety of paper-and-pencil tests to more than 250,000 prospective teachers each year. Over the past few years, the state has worked closely with its testing contractors to encourage the use of



technology to streamline its test administration procedures. Electronic registration, score reporting, and examinee-tracking systems were developed by our testing contractors, National Evaluation Systems and Educational Testing Services. The systems were carefully developed to balance speed and convenience with examinee confidentiality and test security issues that are crucial to the management of these high-stakes examinations. The resulting Internet-based systems allow teacher candidates to retrieve information regarding examinations, register for the examinations online, track their registration progress, receive electronic admission tickets and score reports, and file for changes in registration for almost all of our examinations in a secure and efficient manner. In addition, the Commission and teacher preparation programs are able to retrieve examinee score reports via electronic transmissions.

Some of the improvements and efficiencies that this use of technology has provided are:

- easier access to up-to-date testing information;
- easier access to test registration materials and bulletins;
- faster registration and execution of registration revisions;
- fewer registration errors leading to delays in registration;
- faster turnaround for score reporting; and
- enhanced data transfer capabilities for score reporting to allow easier incorporation of scores into existing data systems at the Commission and institutional levels.

Although traditional registration is still available, a majority of all registrations for California examinations are executed electronically, indicating that the use of technology has benefited not only test administrators, but the teacher candidates they serve.

A look to the future will see examinees actually sitting down to a computer to take electronic credentialing examinations instead of the current paper-and-pencil models. But that teacher-testing technology is still in the developmental stages, and not yet acceptable for use in the high-stakes testing that California administers. Also, the developmental costs and additional resources necessary for computerized test administration are prohibitive at this time.

The Commission is the official “keeper of the records” for credentials issued in California. We issue close to 200,000 credentials each year, so you can imagine it would not take long before our building would be full of boxes of credentials and applications. Two years ago we turned to an electronic and microfilm process to archive our documents. We can scan the documents once and they are saved both digitally and on microfilm. The microfilm is our official record, while staff use the digital image, easily accessible to them by viewers on their desktops. Currently the digital image process is not linked to the certification computer, but when the new system is operational, there will be a link between the digital images and the credential data. Certification staff will be able to look at credential data and, at the same time, access a digital image of the applicant’s college transcripts, past credentials, and applications—another savings of time and an improvement in customer service.

Communications is a difficult task for any organization to perform and especially difficult to perform well. Imagine communicating with 1000 public school districts, 87 Commission-accredited institutions of higher education, 58 county offices of education, over 300,000 public school teachers, as well as the public—you get a hint of the diversity of groups with which we communicate in California. The Commission is embracing technology to help us improve our communication with all of these interests. We currently give our stakeholders two methods to receive Commission communiqués. One is through a listserv. The advantages of this method are speed of delivery, low costs, and timely information. We have been encouraging our stakeholders to use this option. The other option is via the mail; mailing carries substantial costs to the agency in human resources as well as in printing and postage costs. Mailed communications can take up to two weeks to prepare and disseminate, obviously not the fastest way to inform stakeholders.

Our Web page is another method of keeping our constituents informed. For the past 20 years the Commission has published a credential handbook for credential analysts at the various educational institutions. The handbook explains the Commission’s policies and procedures as they relate to licensing. With the field of education changing at a very rapid pace, this handbook was out-of-date as soon as it was published. This year we unveiled a Web-based handbook. It is accessible 24/7 and is always up-to-date. As soon as there is a change in a procedure, the field has the information. There is a “What’s New” box that alerts the field to new procedures. As with any newly introduced technology, there is always some resistance. It is too early to know the full



reaction from our stakeholders, but in trial tests the electronic handbook has been well received. We are committed to making this work because of its advantages to our stakeholders as well as to the agency.

As another method of keeping our stakeholders informed about policies and procedures, the Commission offers training to certification staff from the colleges and universities, county offices of education, and school districts. Our Web page provides a reservation form for these training sessions, up-to-date information about each workshop, and, if a session is full, directions for participants to put themselves on a waiting list or look for another session. The Commission staff no longer has to respond to phone or e-mail requests for these workshops.

Our Web page is also a site where stakeholders may participate in completing surveys. When recommendations are made by one of our standards-setting panels, we solicit comments from the field about the standards through Web-based surveys. An online survey is easier for our stakeholders to complete, does not require data entry by our staff, and gives the Commission up-to-the-minute results. Receiving feedback on our standards now takes just weeks, rather than months. Developing standards, receiving feedback, and presenting these standards to the Commission can be done within a matter of months rather than years, in part because of use of our Web page.

For the past two years, the Commission has utilized a secure, Internet-based reporting system for the annual collection of the federally mandated Title II Institutional Report Cards from its 87 teacher preparation programs. The Title II data include contextual information regarding each teacher preparation program as well as quantitative data about enrollments, supervising teacher ratios, and pass rates on teacher-credentialing assessments. This system has the capability of data transfer by a system of file uploads and downloads, as well as direct data input to the statewide database. It has enabled the Commission to create an efficient, paperless data collection process that has been embraced by the teacher preparation programs. This use of technology allows for wider flexibility in data collection, faster and easier system revisions, and easier statewide compilation of data. Also, all Title II reports are posted on the Commission Web site, offering a cost-effective means of reaching a wider audience.

The Commission has teamed with the Palo Alto Research Center (PARC) to pilot new Web-based technology to use statewide. Through this collaborative pilot technology partnership with PARC, Commission staff have introduced

a software program, called “Sparrow,” to the university program documents review process. Sparrow is a Web-based, group-sharable and group-editable software program that allows messages and documents to be viewed, edited, modified, and/or exchanged in real time among any number of users, independent of the particular equipment configurations and locations of the users. The software is flexible, and the Sparrow pages can be reconfigured to meet the needs of particular tasks and/or users. The Sparrow site is secure, with protected login and passwords.

The Sparrow team was interested in working with educators to see how best the Web-based interactive software they had developed might fit the needs of educators. The work the Commission was about to embark on, a statewide transition to new teacher preparation program standards, appeared to offer an appropriate pilot test model for the application of Sparrow technology to large-scale educational projects. The Sparrow program has reduced travel costs for program reviewers who have had to travel to Sacramento and has shortened the review process by allowing reviewers to work at their own pace, when convenient. Scheduling a review team to travel to Sacramento all at the same time is difficult. This interactive software program has eliminated the need for face-to-face review teams.

In addition to developing standards for credentialing programs and for evaluating applicants, the Commission is responsible for monitoring the professional fitness of every credential holder in California. Before the Commission can issue a document, the applicant must first receive clearance from the California Department of Justice and the FBI. We process several thousand new teacher applicants each month. This past summer the Commission automated the receipt of those responses. Prior to the creation of this interface with the Department of Justice, staff entered these clearances manually into our credential database. It is often said that technology does not reduce the need for staff, but in this instance we were able to reassign full-time staff members to other duties—this at a time when the state is experiencing a personnel freeze.

The Teacher Credentialing Service Improvement Project has taught us some lessons about the use of technology. Technology is not for everyone. Some individuals consider good customer service to be a face-to-face meeting or a voice meeting. We cannot forget those individuals who either are nontechnical or prefer the “old-fashioned way.” The Commission continues to provide walk-in service at our office and the phones are staffed nine hours a day. Technology has reduced the workload for our staff, but has not eliminated it.



When developing a technology project, it is imperative that you have a strong project management team. In California we have specific control agencies that monitor the progress of technology projects. A high percentage of technology projects fail; we were determined that this would not happen to our project and it has not to date. A strong project management team will ensure the success of the project. Every task must be monitored to keep the project on time and within budget. We have had a few stumbles but our team is now standing upright and is moving the project forward.

Technology is helping the Commission to perform its duties every day, even on weekends. All of the technology systems that the Commission has implemented—the Web-based lookup and renewal systems; online collection of data from surveys, universities and counties; dissemination of information over the Web and e-mail; online handbooks and manuals; easier data access; reduced need for travel through use of interactive software—are helping us to meet our vision of ensuring that those who educate the children of California are academically and professionally prepared.

