Responsibility for general education falls on all disciplines

FOCUS has invited the deans of Carnegie Mellon’s colleges to contribute columns discussing issues of importance to their schools and the wider university. The following is a contribution by John L. Anderson, dean of CIT. As of April, Anderson will be leaving Carnegie Mellon to be provost of Case Western Reserve University.

I’m continually amused at the assertions of what constitutes a good “general education.” The default position is generally a proposal of X courses in Y disciplines, a rather algorithmic view of learning. My view is that a well-rounded education prepares a person for a successful life, defined as personally satisfying and contributing to some small way to improvement of the human condition. This leaves the door open for many curricular (and extra-curricular) alternatives from which an individual can choose.

“Work,” there are many good ones. Three major challenges in American higher education are to provide depth and breadth, connect technical with humanistic, and instill some sense of global awareness. With respect to the last two, engineering educators should be thinking about how they can contribute to the general education of all students, not just their majors. We have not done this in the past, nor have non-engineering faculty and administrators argued with appropriate intensity about this being a good thing for their own majors.

Carnegie Mellon pioneered a national change in engineering education in 1991 by introducing rigorous engineering courses in the first year, emphasizing parallel learning in science and engineering, and substantially increasing the flexibility of the curriculum. Perhaps it is time to create a second revolution, in partnership with colleagues outside the engineering college, to shape the general education curriculum in a way that engineering principles and thought find their way into the curriculum of all disciplines. A humanist or artist without an appreciation of science and engineering is as narrow as a scientist or engineer without a reciprocal interest. Some symmetry is needed in the way we define “well rounded” and a “general education.”

The “modern” history of engineering dates to the 15th century and Leonardo da Vinci (for a wonderful article on the inexorable... continued on page 3

Does Carnegie Mellon need an institutional repository?

Do any of these scenarios sound familiar? You’ve just published an article, only to discover that the readership of the journal has declined because the publisher raised the price so high that libraries are canceling their subscriptions.

You’ve implemented a multimedia educational tool and used it effectively in the classroom for several years, but now the software no longer runs because of a new operating system or browser version — which is why your innovative work is not considered seriously in your review for promotion.

In a redesign of your department’s website, you discover that important papers and reports were inadvertently deleted and your automatic backup system stopped functioning, unnoticed, months ago.

If any of these scenarios sounds familiar, you might be interested in an institutional repository. Institutional repositories are an emerging trend among institutions of higher education. They build on the grass-roots practice among faculty of posting their research online, where it becomes part of a global system of distributed information content and is likely to be cited five times as often as traditional print journal literature.

Institutional repositories are touted as a strategic response to opportunities afforded by a digital networked environment and to systemic problems in the scholarly journal system. Though standards have not yet been established for institutional repositories, common characteristics have been agreed upon and software has been developed to support their implementation.

So what exactly is an institutional repository? An institutional repository is a set of centralized, web-based services for organizing, managing, preserving and providing open access to digital scholarship and other intellectual assets created by members of the institution. The primary characteristics of an institutional repository are that it is institutionally defined, scholarly, cumulative and perpetual, and open and interoperable with other systems. If Carnegie Mellon were to develop an institutional repository, it could include such things as course materials, images, problem sets, working papers, reports and dissertations generated within the community as well as videos of guest lectures or other events on campus. The content of the repository could be discovered in a Google search and displayed in a web browser. It would be maintained in perpetuity, withdrawn only in exceptional circumstances such as allegations of libel, plagiarism or copyright infringement. Carnegie Mellon faculty and administrators would determine the scope and policies that apply to the repository, for example, what content can be contributed; the permissions, restrictions, and conditions that apply to its use; and the... continued on page 7
Letters

FCEs truly an annoyance, perhaps a menace

DEAR EDITOR:

Bravo to Clark Glymour for his captivating article (Focus, Winter ’04) on abolishing FCEs. What a splendid example of the reliability in drawing conclusions from the specific to the general.

As a former CMU student, the opportunity to express my opinion about the quality of my instruction through FCEs was a tiresome obligation. Students annually pay amounts on par with new luxury sports cars; why would they actually wish to provide feedback on the quality of this instruction?

To further support Mr. Glymour’s analysis, I witnessed two of the three best professors that I had during my undergraduate career, all with exceptionally high FCEs, be dismissed from the university because they were more interested in teaching than maintaining their profile in the scholarly community. Clearly, this practice, which benefits students more than tenured faculty cannot be tolerated for it erodes the very foundation, freedoms, and lack of accountability inherent in the academic lifestyle.

Another individual who took this path, Professor Schoenwald (also with high FCE scores) was my greatest inspiration in college. This quirky looking maverick history professor, with his unorthodox teaching methods and scores (which were the basis of my performance as an undergraduate) was my inspiration for my future career. Another individual who took this path, Professor Schoenwald (also with high FCE scores) was my greatest inspiration in college. This quirky looking maverick history professor, with his unorthodox teaching methods and scores (which were the basis of my performance as an undergraduate) was my inspiration for my future career.

Truly astonishing! I used to fear that if my FCE scores were too low, I would lose my annual appointment. Now, with the benefit of Mr. Glymour’s insight, I better understand the FCE sweepstakes. True, some instructors make the error of focusing on teaching, and if their luck is really rotten, receive high FCEs to expose this mistake. Whereas, a few clever faculty have learned the benefit of reducing their FCE scores to lessen suspicion that they may be spending too much time focusing on teaching at the exclusion of time spent impressing their peers.

Impressive strategy!

The problem is that I, like a few other naive instructors at Carnegie Mellon, teach because I get a kick out of helping students discover new things, not because teaching furthers my lifestyle. Why would any instructor wish for FCEs?

The problem is that I, like a few other naive instructors at Carnegie Mellon, teach because I get a kick out of helping students discover new things, not because teaching furthers my lifestyle. Why would any instructor wish for FCEs?

With tongue firmly in cheek,

DAVID CELENTS, AIA
Adjunct Faculty Architecture Department
CMU B. Arch 1984

FCEs needed as democratic feedback

Clark Glymour’s argument for abolishing faculty course evaluations seems to me to have some similarities to arguments that would be made by a dictator against democracy.

1. The dictator knows much more about governing and about political issues than does the average guy on the street. The dictator is therefore the person who should make decisions as to what things will be done and how they will be done.

2. The people are better off abiding by the dictates of the dictator than would be if they had a say in what does or doesn’t work, even if they don’t know it.

3. Criticism of the dictator is inherently bad, because it might affect the wise decisions that he would make in its absence, and in the worst case, might lead to his downfall.

Like Clark, I worry that a desire and/or need for high FCE scores may influence some faculty members to dumb down their courses, inflate grades, and make decisions about course content and methodology that do not lead to more and better learning. I welcome and support his call for the development of additional methods that can be used to gauge the quality of teaching. But I strongly disagree that we should abolish FCEs. Like the dictator, we need real feedback from our subjects as to how we perceive our dictates — they generally get it right. If we, in our wisdom, know that strongly negative feedback is wrong, we at least need to be aware that the proletariat is restless.

JEFFREY CHESHER
Professor of ECE

Exhibition from the Netherlands

Adenia cordifolia, watercolor by Johan Christian Peter Aarckzen (1784–1855), from the exhibition Botanical Watercolors from the Nationaal Herbarium Nederland, on display from April 29 to July 2004 at Hunt Institute for Botanical Documentation on the fifth floor of Hunt Library.

The exhibition is a selection of 48 watercolors, spanning the 17th–19th centuries, on loan from the collection of the Nationaal Herbarium Nederland, Leiden University branch, Leiden. This will be the first time works from this collection will be seen in North America.

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continued from page one

linkage between art and engineering in design, see “The Mind’s Eye: Nonverbal Thought in Technology” by Eugene S. Ferguson in Science, vol. 197, 827-836 (1977)). Over the past 50 years there has been a transition in engineering education from a reliance on empiricism and correlation to scientific analysis, to synthesis and design, to computation, and finally to systems thinking (see the final sentence of Ferguson’s article to see what he thinks of this). Engineering education has experienced a significant evolution of guiding principles over this time. I believe the next evolution will involve the role of engineering educators in general education.

Table 1 provides snapshots of the mechanical engineering curriculum at CMU since 1960; all the departments in CIT closely resemble this curriculum and some have significantly more flexibility (more free electives). The table does not show chronology, which is important in our engineering curriculum. In 1991 CIT successfully pioneered the concept of parallelism of science and engineering education, beginning in the first year, along with a related concept of “just-in-time learning.” Prior to 1991 (and even now in many engineering colleges) science and engineering were taught sequentially, with the first real (rigorous) engineering course sometimes postponed until late in the second or even the third year. So though the engineering content of the curriculum, on a percentage basis, has not changed much since 1960, the timing and nature of these courses have undergone an almost radical (for engineers) change.

Another important point gleaned from Table 1 is the greatly increased flexibility of the curriculum—from 0 to 12 percent of the curriculum assigned to free electives (i.e., any course at the university carrying academic credit). Finally, note that the Mechanical Engineering major today must take at least 44 percent of her course units outside CIT, and could take 56 percent outside if all free electives were so chosen. However, before we put ourselves on the back too many times, we should keep in mind that a good education is more than prescribing X courses in Y disciplines.

I applaud John Lehoczky’s article in FO-CUS (December 2003) where he calls for creation of an agenda for general education. A university community led by Kristina Straub and Indira Nair was recently organized with the goal of defining general education in a manner that is consistent with the educational mission of each college. The emphasis will be on outcomes of the educational process, not bean counting of courses. While the details of description might change, the proposal that all our students must graduate with experiences in communicating, reflecting, modeling, deciding and creating is a good start. (By the way, this listing is not all that different from the Carnegie Plan authored by President Doherty in 1936.) I expect these brief descriptors will undergo many revisions, but the idea of broad knowledge and skill areas forming the basis of general education appeals to me. Issues related to global awareness should be included as well. One area that is missing is business; perhaps it should be listed under communicating, because knowledge of business concepts helps an individual navigate society. I would also put information technology in this category. In defining general education, it is time to think out of the box and avoid relying on a rear-view mirror when contemplating the future.

A leader once told me “Be careful what you suggest as an administrator—you might have to live by your suggestions when you step back up to a faculty position.” Well, I have taken some liberties of opinion here because I emigrate on April 1 to Cleveland after 28 very enjoyable years at Carnegie Mellon and won’t have to live under this threat (unless someone sends a copy of the article to Case Western Reserve University). But since all universities are wrestling with the future of higher education, I’m simply throwing a penny in the fountain without the presumption of high value but hoping it might help. In any event, Carnegie Mellon will be a leader in this discussion and I plan to keep a watchful eye for the good insights and bold initiatives that always come from this place. And I anticipate that CIT will partner with the rest of the university to develop a pioneering view of general education.

Table 1. B.S. degree requirements in Mechanical Engineering for the years 1960, 1980, 2000. The column labeled “Sum” is the total percentage of units in the general categories of science, engineering, etc. Note that a “free elective” is any course at Carnegie Mellon that carries academic credit.

<table>
<thead>
<tr>
<th></th>
<th>1960</th>
<th></th>
<th>1980</th>
<th></th>
<th>2000</th>
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<tr>
<td></td>
<td>Units</td>
<td>% of Total</td>
<td>Sum</td>
<td>% of Total</td>
<td>Sum</td>
<td>% of Total</td>
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<tr>
<td>Other</td>
<td>20</td>
<td>5%</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eng. Science Engineering</td>
<td>117</td>
<td>27%</td>
<td>21%</td>
<td>110</td>
<td>28%</td>
<td>77</td>
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<tr>
<td>Tech Elective</td>
<td>48</td>
<td>11%</td>
<td>16%</td>
<td>45</td>
<td>12%</td>
<td>83</td>
</tr>
<tr>
<td>H&amp;SS/FA</td>
<td>90</td>
<td>21%</td>
<td>19%</td>
<td>72</td>
<td>19%</td>
<td>72</td>
</tr>
<tr>
<td>Other</td>
<td>40</td>
<td>9%</td>
<td>9%</td>
<td>18</td>
<td>5%</td>
<td>45</td>
</tr>
<tr>
<td>Free Electives</td>
<td>0</td>
<td>0%</td>
<td>5%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>Required Courses</td>
<td>40</td>
<td>9%</td>
<td>9%</td>
<td>18</td>
<td>5%</td>
<td>45</td>
</tr>
<tr>
<td>Total</td>
<td>431</td>
<td>100%</td>
<td>19%</td>
<td>389</td>
<td>100%</td>
<td>380</td>
</tr>
</tbody>
</table>

Carnegie Mellon pioneered a national change in engineering education in 1991 by introducing rigorous engineering courses in the first year, emphasizing parallel learning in science and engineering, and substantially increasing the flexibility of the curriculum. Perhaps it is time to create a second revolution, in partnership with colleagues outside the engineering college, to shape the general education curriculum in a way that engineering principles and thought find their way into the curriculum of all disciplines.
Most Charitable Door
Wean Hall 3105
Mark Puskar, Manager of Networking and Facilities, Computer Science
Puskar takes pride in the fact that he shares his last name with a pharmaceuticals giant who donated $20 million to West Virginia University. A newspaper clipping with the philanthropist’s first name crossed out dons this door.

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Most Pro-America Door
Wean Hall 8207
Tracy Farbacher, Administrative Associate, Computer Science
Farbacher has a lot of respect for our nation’s armed forces, so illustrated by her stickers for the U.S. Army, U.S. Air Force and Marines. She also has three distinct images of the U.S. flag.

(Not Pictured)
Most Politically Active Door
Baker Hall 236B
Scott Sandage, Associate Professor, History
Sandage posted both an article he wrote for the Post-Gazette in 1999 speaking out about the university’s responsibility to give benefits to same-sex domestic partners, stating that he would essentially leave CMU if it didn’t grant these necessary benefits. Beside that article is a piece of handwritten hate mail from a reader of the Post-Gazette telling Sandage to get out of the city. “Good Riddance” is a direct quote. Yet support for Sandage is clear; comments of “not true” and “you are a worthwhile addition to this school” have been marked on the letter.

Biggest Steelers Fan Door
Wean Hall 7214
Richard Statman, Professor of Math and Computer Science
One in five Pittsburghers are currently wearing some type of Steelers paraphernalia, but that level of support isn’t found on the doors of CMU. Statman wins for biggest fan with two posters and a crude “Go Steelers!” printout.

(Not Pictured)
Best Sense of Humor About One’s Profession Door
Baker Hall 245K
Paul Hopper, Professor, English and Linguistics
Hopper, a world-renowned linguist, proves that he can see the humor in his job with two clippings on his door: a Frank & Ernest cartoon shows a teacher pointing at the phrase “The dog runs fast” on a blackboard as a student says, “If you don’t mind my asking, about how much does a sentence diagrammer pull down a year?” And a newspaper clipping reads: “Dominique Bouhours (1628-1702) was a French grammarian. It’s a matter of record that on his death bed his last words were: ‘I am about to – or I am going to – die. Either expression is used.’” I may have overused the colon in this paragraph.

Biggest Identity Crisis Door
Roberts Hall 348
This door is having trouble accepting its lot in life. It bears a sign that says, “Please enter through room 347.” At least it’s polite.

The First Annual Faculty and Staff Door Contest
(no application necessary)

Photos and captions by Whitney Hess
Biggest Collector Door
Wean Hall 4101
Catherine Copetas, Assistant Dean of SCS
This door is covered in “At night” postcards, which basically all look the same because, as the joke goes, all cities look alike at night – completely black. Copetas actually has a collection of 2,300 postcards, but she can only fit about 65. People see them on her door and send postcards to her from all around the world; sometimes she doesn’t even know the senders!

Most Eclectic Door
Porter Hall 229K
Mari Alice McShane, Statistics Staff
McShane dresses her door with quotes, cartoons, photos, images of Jerry Garcia, and magazine clippings. Her favorite cartoon is of a boss asking, “Why aren’t you working?” to which the employee answers, “I didn’t see you coming.” Hopefully in this case life isn’t imitating art.

Proudest Mom Door
Hamerschlag Hall 3107
Lyz Prelich-Knight, Secretary, Electrical and Computer Engineering
Prelich-Knight uses her office door like most moms use their refrigerators: to show off her son’s drawings. Little Nicholas is quite talented and makes very good use of paint, markers, tape and glue – a multimedia artist!

Least Decorated Doors
Scaife Hall
What a bore! There is nowhere for the eyes to rest inside this building. The exterior is like a prison; the least its occupants could do is spruce up the interior with some door decorations.

Most Cartoon-Lovers Hallway
Wean Hall 5100
There’s nothing quite like approaching this hallway, just to your left as you enter Wean Hall from the Mall (5th floor); all you see is cartoons for miles. Calvin and Hobbes, Dilbert and Far Side are the favorites. Computer Science faculty sure do have great senses of humor.

Most Bilingual Door
Porter Hall 225A
Anne Green, Associate Teaching Professor of German
Bonnie Youngs, Associate Teaching Professor of French
Two modern languages professors occupy this office so they have jointly decorated the door with stickers, posters and other teacher-like trimmings in both Deutsch and Français.

Most Artistic Door
CFA 414
Mary Weidner, Professor of Art
Surprisingly, faculty and staff in the artistic areas of the university tend not to use their doors as a canvas. Most of the doors in CFA and Margaret Morrison are blank. However, Weidner shows her true colors on her office door with an exhibition of postcard notices from art shows around the world.
As we look for someplace around here where you can get a drink and a bite to eat, we do our best to provide a frame of reference by traveling as far away as we can to sample fare elsewhere. Amongst various places visited by the collective in recent days was Albuquerque, where a Cost Plus store lured us in. Of interest was the attitude of the checkout guy chattering with the woman ahead of us in line. He said the usual nice things, though people say and then added: "I really wish you could breathe more beautiful air in Paradise." The sun being out, the temp around 55 seemed enough reason to lie on the temp in Pittsburgh at the time (January) was about 10, with light, may be heavy, snow. The woman in line replied, "We're lucky to be living here." Which made it a little embarrassing to have to admit, soon after, that we were only visiting, and to have to recognize that we didn't usually hear people at home claim to be living in Paradise. Something should be done about that.

Weather aside, the other paradisial aspect of Albuquerque was the availability of many many drinkable wines in Cost Plus in Albuquerque (we repeat the name only to test of our spelling ability, not just to indulge a fantasy of living there). We found plenty of cheapo-White Zinfandel, for example, for a measly 4.79, while it goes locally for 7.99. We found another much more than drinkable Cabernet Sauvignon from Chile, a Los Vascos 2001 (Colchagua) The little sign on the shelf, signs that usually contain descriptors we avoid, said: fruity. And it is fruity, a good way for wines to be. And, it cost only 6.99 per bottle, with a 10% discount for case purchases. There was also an inexpensive Vino Vasco Cabernet 2000 Reserve Colchagua, for 15.99 and a 2002 Clune Ancient Vines Zinfandel, for 14.99. The Clune was excellent, really very drinkable, whereas the more expensive Los Vascos wasn’t worth an extra penny, too bland, too mezmerized for those who prefer reds with some life, cabs or zins for example. Which just goes to prove that sometimes it is (or is not) worth spending more on wine. A Dunegan Hills 2000 Viejo Syrah for 9.99 had one of those intriguing little signs that said, normally 19.99. It was good and was probably worth, normally, about 10.99.

A recent trip to Italy found us awash in vino della casa whenever we went to eat, and it was all uniformly delicious and all usually about 66 anliter, and it never came with a little sign saying it was fruity or that it normally cost a lot more. The biggest treat was to be found in Venice where almost everything was an outrageous price. We stayed in a nice little albergo, a very respectable place near the fish market, where people live and work and shop. There we found a wine shop, very small, with plastic bulk wine containers lining the wall, the entire price being about 2 Euros the liter. We explained to the lady of the shop, phrasebook in hand, that we had no bottle and she kindly offered us a little plastic two-liter water bottle and then obligingly filled it from the little plastic hose with six Euros to dollars, well you could probably buy a vineyard for that by now. Nero d'Avola can be had locally and it is worth looking for. We tried it again recently on a dinner trip to the Gran Canal restaurant in Sharpsburg where it goes for the not exesive price, for a restaurant, of 28 although surely it could sell for less and surely they would sell more of it.

Speaking of what wines should cost, we recently heard about Two Buck Chuck and wanted to know more, we still want to know more— if you know more send us a note—send us a bottle. Once upon a time the Charles Shaw vineyard was up for sale because of—or can you imagine—a bit a complicated divorce. It was snapped up name and all. Then the glitz of wine grapes swept California and now the new owner of the Shaw name runs around every year buying up excess produce to make masses of cheap Marinara. And apparently drinkable wine selling for $1.99 a bottle in Trader Joe’s on the west coast. On the basis of one experience we found it (thanks to our former colleague Herb Olds, now living out west) to be, well, ok. Probably worth $4.50. But, wine for two bucks, that’s how it should be. Isn’t that what the winey Paradise really means when adequately translated from the ancient Aramaic? Not long ago we reported on our exotic travels into deepest Cranberry. At the time we had a trip to West Virginia on our agenda, and that trip is now finally a reality. We heard about the State Line Fine Wine, a couple of years back when we picked up a business card in Le Pommier. Christine and Jim Dauber of Le Pommier reported that they got their wines from State Line. Eventually we decided to give it a try, and since have been making occasional pilgrimages over there. State Line Fine Wines is in Wettron, not too many miles beyond Star Lake Amphitheater, or whatever it’s called nowadays. And as bet it places we like to shop at, it’s in a miserable looking little dump next to a grubby looking gym.

State Line has been a delicious alternative to the terrible state stores in PA. On a Saturday afternoon one can wander in, be greeted warmly and find several open bottles on the counter for sampling. There was often a character there who seemed to go by the nickname "Pope of the Rhone." Rhone wines apparently the favorite of the State Line guys, this Pope fellow and Le Pommier as well. Mr. Pope lured us into drinking a fine bottle of Cumas at his expense, making us think that Wettron, West Virginia can be as friendly as Albuquerque—the expression “at his expense" when translated into ancient Aramaic, oddly enough, turns out to mean living in paradise. Can’t recall any such similar event taking place in PA. The nearest we got to a real conversation in a state store was an argument we had with a checkout person who took a strong union line opposed to Sunday openings of the PA stores. Not, we thought, a very nice attitude—not enough heart in the work, or perhaps too much work in the heart, or something.

A subsequent visit to State Line was a little troubling. We found the shelves to be somewhat bare, although good wines were still to be had, as were tastings. The original owners have apparently moved on to something else, although we didn’t find out what. There are new investors hard at work, apparently just looking for the right moment to plunge into a fresh stocking of the shelves from fresh suppliers. We’re holding our breath in hope, and will try to report back. Or you can call them to ask: 304-723-0230.

We tried a few things from State Line: Ex- ceptional Wines 2001 Sauvignon Blanc, 9.99; very medivial, tarry aftertaste, a good wine with an unpleasant something hanging around in the background: only had half the bottle, but two days later what was left was better, so open a bottle and let it breathe for two or three days if you really want to. A richo Zabaco Dancing Bull Zinfandine 2001, 12.99, drinkable enough; Bogie 2001 Merlot California 2001 11.99 very drinkable; Bogie 2001 Cabernet Sauvignon 13.99 ok, drinkable, not worth it because the Merlot is more drinkable; from Italy, an Anselmi (Veleno) San Vincenzo white 14.99, very drinkable, possibly fruity; “Mother Zin,” from Italy, 2001 Primitivod Telantano, the claim is that primitivo is genetically identical to California zin, from Apulia 10.89, well worth it; something called Baby Barb from Italy, a Barbera d’Asti 2001, Cantine Sant’ Agata, 9.99, slightly sharp but drinkable and worth it, several bottles of Prosecco Brut, by Zardetto, bubbly: the bottle says that it is characterized by “intense and fruity aromas of acacia flowers, wild strawberries and ripe golden apples,” from Congeliano Italy—despite the description it was very drinkable, as good as the same thing for $2 a liter in Venice.

So, our conclusion, in the mood of the Albuquerque paradisial checkout guy, and all the other nice people who say hello and tell us which wines to buy and turn out to be giving good advice and the people who write about good wines and sell them at reasonable prices: we make note that paradise may not be that far away. Not that we think that all matters of "culture" can be reduced to the pleasure principle. It’s more that we think that they should be based on some principle, and why not the pleasure principle? On that topic, as a matter of fact, our researchers have actually turned up some recent linguistic evidence that indicates that the motto handed down by our glorious founder (of our university, that is to say) was not after all “My heart is in the work.” Turns out, when what he actually said is carefully translated from the original ancient Scots (very similar to Aramaic) that garrulous old Andrew favored in his more relaxed and bibulous moments, our motto actually says, “Nice things are nicer than nasty ones.”

The food and wine collective, in various groupings at various times included Clemens Anderson [Drama], Barbara Anderson [Drama], Otto Foggus [GPW], Alan Kennedy [English], Martin Prekop [CFA Dean]
The Coalition for Networked Information repository offers the broadest possible dissemination of scholarship, an institutional mandate of universities. Unlike the current scholarly digital formats and discovery tools that will be supported.

Implementing an institutional repository requires considerable planning and resource commitment. So why are universities implementing them? Unlike the current scholarly journal system, which limits the readership and availability of material as well as the format of scholarship, an institutional repository offers the broadest possible dissemination of the entire panoply of digital scholarship produced by the institution. An institutional repository can enhance the visibility of research. It becomes a platform to demonstrate its value to funding sources. It can enhance the professional visibility of faculty by increasing dissemination and use of their work.

An institutional repository can encourage innovation, facilitate qualitative analysis of faculty work, support classroom teaching, register the priority of ideas, provide a catalog of the institution's intellectual capital, remind the weaknesses of current self-archiving practices and extend the work of disciplinary archives. Furthermore, proponents say, an institutional repository can improve scholarly communication and advance scholarly research by enabling users to locate and retrieve relevant information more quickly and easily.

Naysayers discourage the development of institutional repositories. Noted based on the belief that each discipline will eventually organize, manage and preserve its own digital assets, unilaterally and for universities to invest resources in these activities. Given competing priorities in higher education and projected long-term financial hard times, they question whether sufficient resources can or should be allocated to create and sustain an institutional repository.

These counterpoints raise the question of whether institutions of higher education are ever existed? Exactly! The issue gains significance as faculty responsibility?

Despite the growing popularity of institutional repositories, the question remains: Does Carnegie Mellon need one, and if so, what would it take to implement it? The University Libraries conducted a preliminary investigation in September and October 2003 to ascertain faculty interest in an institutional repository. Faculty representing five colleges in the university responded with interest to email inquiries from librarians. Some faculty shared their tales of woe. For example, award-winning software developed for classroom use has been rendered obsolete by new operating systems and computing platforms. Lack of recognition of non-traditional work — inextricably linked with lack of commitment to preserving digital scholarship — is hampering promotion and innovation among faculty.

Valuable assets have been deleted or lost through carelessness, inadequacy, or lack of appreciation for preserving the institutional and cultural history of the campus. Our current distributed approach to organizing, managing and stewarding valuable digital assets is not providing easy discovery and long-term access to these assets. As one department head put it, "departments might have the time, resources and expertise to ensure short-term preservation, but long-term preservation can only be ensured by institutional commitment." In addition to highlighting problems, responding faculty outlined some minimum requirements for an institutional repository at Carnegie Mellon: quality systems management, easy submission procedures, full-text searching and a sufficient commitment of human and financial resources to create and sustain the repository. They also acknowledged the copyright concern. Faculty would need to retain non-exclusive distribution of self-archiving rights to their work so that they can deposit it in the repository. A growing number of publishers allow self-archiving of the pre-refereed or post-refereed version, if not the actual published version, of an article. Research indicates that 55 percent readily grant this right, while many others will grant it if asked.

Following this preliminary exploration, the University Libraries gave a brief presentation at the academic department heads meeting convened by the provost in November 2003. Meeting participants responded enthusiastically to the idea of an institutional repository at Carnegie Mellon and agreed that developing a repository would require university administrators to accept responsibility for stewarding the university's digital assets and to commit sufficient time and resources to the project in perpetuity to gain faculty trust. The group also agreed that a repository would require faculty, technologists and administrators to collaborate on developing the requisite infrastructure, standards, policies and one-to-one interface for faculty to deposit their work.

Following the enthusiastic response from academic department heads, the Executive Committee of the Faculty Senate discussed whether Carnegie Mellon needs an institutional repository at its meeting March 3. The lively discussion concluded with agreement to put the topic on the agenda for an upcoming Faculty Senate meeting. To involve an even broader audience in the discussion, an open Town Meeting was held on April 13. Faculty were encouraged to send questions and comments to Denise Troll Covey (ml@andrew.cmu.edu).

DENISE TROLL COVEY
Associate Dean, University Libraries

Does CMU need an institutional repository?

In our last column we waxed, enthusiastic and possibly nostalgic, over the loss of glory of the Skibo Faculty Dining Room. This photo and brief note should not in any sense be regarded as a policy correction statement on our part. Just as when we say that perhaps several million jobs will be created in the coming year, or that pigs can fly, when we say that the Skibo Faculty Dining Room was always crowded, well, that’s the way it was. It just happens to be the case, through no fault of our own, that we are no longer considered a secret. So the question is raised: Should Carnegie Mellon Computing Services be required to implement an institutional repository just to keep up with the Joneses, perhaps knowing who the Joneses are would be helpful. The clan currently includes MIT, Columbia University; Cornell University; Ohio State University, the Universities of California, Rochester, Toronto, Virginia, and Washington, Caltech; Virginia Polytechnic Institute and State University; Hofstra University; CERN Scientific Information Service; and universities in Australia and Europe. Despite the growing popularity of institutional repositories, the question remains: Does Carnegie Mellon need one, and if so, what would it take to implement it? The University Libraries conducted a preliminary investigation in September and October 2003 to ascertain faculty interest in an institutional repository. Faculty representing five colleges in the university responded with interest to email inquiries from librarians. Some faculty shared their tales of woe. For example, award-winning software developed for classroom use has been rendered obsolete by new operating systems and computing platforms. Lack of recognition of non-traditional work — inextricably linked with lack of commitment to preserving digital scholarship — is hampering promotion and innovation among faculty.

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MEMORIES OF SKIBO: A SPECIAL SUPPLEMENT TO THE CULTURAL CORNER BY THE FOOD AND WINE COLLECTIVE

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From Robots to Pushcarts: 
CEE Goes to the Rose Bowl

Needed: 13 pushcarts designed and built to transport a high school Steel Drum Band 5.5 miles while performing in the Tournament of Roses parade; must meet safety standards for minor age students while facilitating musical performance.

Who you gonna call? Why Carnegie Mellon, of course. CIT specifically. Annually eight high school bands, selected internationally, are invited to perform at the Tournament of Roses Parade held on New Year’s Day in Pasadena, California. A much coveted invitation, this year it was bestowed upon a Pittsburgh high school troupe, the Ambridge Area High School Marching and Steel Drum Bands. Invitation accepted, Ambridge began to plan the trip to learn that a float needed to facilitate moving the Steel Drum Band along the parade route was not possible. Six months to event day, enter the Civil and Environmental Engineering Department to the rescue.

Known best on campus for his expertise in designing and completing (with graduating CEE students) construction projects that beautify and improve campus life, Larry Cartwright was approached in July by Sal Aloe, AAHS band director with a cry for help in designing and building six pushcarts with a short delivery date of Dec. 5. Always unflappable, Larry envisioned a project of this type as a great teaching tool and community outreach opportunity. Additionally, he had a senior undergraduate student, Phil Clingman, who needed an independent study design project. Enter Phil Clingman.

A prototype of a cart was built with the input of the band leaders and students. During the design stage three major areas were considered: ergonomic, musical and operator safety. Ergonomically each cart had to transport a musician and be powered by a human operator. Musically, sound emanates from the bottom of the steel drum, so care and attention had to be given to the placement of the drum to protect its sound quality and hertz resonance. For musician safety, brakes for each cart had to be installed. (See photo below right.)

The original plan grew from six carts to 13 carts. Early in the design stage it was discovered that pullcarts would not work. Phil and team had to incorporate push technology rather than pull technology. It is much tougher to push than pull but for the sake of performance the design was reversed. An external donation of aluminum was a big help but at 25-foot lengths it presented a problem of transportation. Phil suggested using an Ambridge school bus to deliver the long pieces, and once it arrived at Carnegie Mellon, he devised an ingenious way to get them into Porter Hall. Necessity is truly the mother of invention!

In early December the band was ready to hit the streets of Ambridge to practice for their debut on Jan. 1. Rented trucks delivered the carts to a warehouse in Ambridge where the students test drove them. The parade route, it turns out, has a 2% grade. Not much for us Pittsburghers, but in California and over 5.5 miles of parade route, it would prove to test even the hardiest operator.

An early start and a helpful California trooper saved the day for the Steel Drum Band as the truck transporting the pushcarts broke down on the freeway on the way to the parade. The AAHS Football Team volunteered as pushers, along with some Dads and, of course, Phil Clingman. CMU donated not only most of the materials, the time of talented personnel, tools and shipping crates, but also paid Phil’s way to the Rose Bowl Parade (plus a ticket to the game). The Carnegie Mellon team: Larry Cartwright, professor, CEE; senior design project director, Phil Clingman and CEE work-study students: Dave Carothers, Julia Carroll, Jared Deible, Landon Lochrie, James Corral and Brian Belgodere.

And as you can imagine, the Steel Drum Band was very popular at the Tournament of Roses VIP receptions. Dance party anyone?

LYNN BERARD
Pictured above from left: Sal Aloe, AAHS, Phil Clingman, Larry Cartwright and Todd Hartman, AAHS band director, lift the pushcart frame to demo its lightweight construction. On the right: Phil Clingman gives his own design a test push. Below: The Drum Band in action during the Rose Bowl Parade.
How will the proposed $5,000 sliding scale cap per family reduce the pressure on the Cyert Center wait list? Why haven’t there been any new positions for the Cyert Center? We are exploring the future makeup of the Cyert Center families with the new cap (i.e. staff vs. faculty, departments represented) and rethinking the cap.

Is it possible to make the cap $5,000 per child rather than per family? What are the ramifications for the money the university will save by decreasing the benefit they currently pay the Cyert Center, which is approximately $350,000 annually?

President Cohon said the proposed cap may not do much to relieve the waitlist. He said that the elimination of the current discount and the children’s scale benefit cap would actually encourage many of those on the waitlist to seek alternative childcare and remove themselves from the list. To date there have been no projections done regarding the future makeup of the Cyert Center budget, but the goal is to have the center become more self-sustaining.

Who enforces smoking policy? Currently, the Cyert Center is a self-enforcing policy. If you have specific concerns about a certain area, please contact Carl Carlson that directs EHS & at mmiller@andrew.cmu.edu or 8-1377.

Who should staff members with parking concern contact? There are plans to add another floor to the East Campus Garage? If everyone regularly uses the Cyert Center, there is a need to make the Cyert Center budget, but the goal is to have the center become more self-sustaining.

Could the Monday of spring break be a floating holiday or PTO day? Monday — see www.andrew.cmu.edu/pgod/t/bp/PTOprocedures.html.

If you would like to help with the planning or have a suggestion for a morning or afternoon activity, please contact Rita Motor at rita@andrew.cmu.edu or 8-8871. We meet every other Monday, see www.andrew.cmu.edu/pgod/bp/PTOplanning-meetings.html for a meeting schedule.

We are also looking for people who would be interested in presenting the afternoon tracks. People (activities for girls or boys). If you have a 50-minute activity, please contact Rita. Be sure to indicate if your presentation is appropriate for girls, boys, or co-ed. Have a question about being a presenter? See www.andrew.cmu.edu/pgod/bp/PTOprocedures.html.

Staff Highlights

You probably know Karyn Carpenter. She has assisted approximately 1,000 of us in fulfilling our benefit needs, and the university has countless more staff members with their benefit questions and issues. However, you probably don’t know the Cyert has been the university to return to her teaching career. During her 12 years at the university, she was an active member of and advocate for the campus community. Serving on Staff Council for nearly 10 years, she helped to formulate Staff Rewards and Recognition Committee was an advocate for the University Parking Committee, and also served Panel on Communication and Food Drive Committees. In the mid-1990s, she served as Staff Council Secretary. Carolyn Dillon was hired as the Coordinator of Staff Diversity Outreach. In 2003, she was appointed as the chair of the diversity committee, and she currently serves.

Several dozen staff members gathered on March 11 for Staff Council’s first Open Forum. Barbara Smith, assistant vice president for human resources, introduced the meeting and opened the floor for members’ questions and Staff Council Vice Chair Joseph Pastorki moderated. Below is a summary of the discussion and questions.

The first comment was from Jean Smarto, manager of procurement services development of Staff Council. She introduced the new travel vendor, Carlson Wagonlit.

For more information, please see: http://smarthy.city.cmu.edu/pgod/bp/PTOprocedures.html.

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The Cyert Center is a very generous child care benefit. In fact, it’s more than the child tuition benefit.

Due to the complex nature of the benefit transition, the change was not communicated well. Staff members are being asked to help identify a diverse pool of qualified candidates both internally and externally. Faculty, Carnegie Mellon employees are able to register with the QUEST program. Through QUEST — the career referral process for Qualified University Employees Seeking Employment in the Cyert Center, which promotes possible transfer opportunities at Carnegie Mellon for current employees who have registered for this service.

Carnegie Mellon offers a very generous child care benefit. In fact, it’s more than the child tuition benefit.

As the yearly cost is increasing with years of service and there is a cap which is bad and most departments can accommodate.

A federal government guideline allows a $5,000 cap per family, which is the current cap for child care. Carnegie Mellon has decided to expand this benefit to per child.

The October 2003 most reasonable benefit cap is $11,400 per child, some non-exempt positions end up paying as little as $250 per month with their benefit.

How are we receiving only 2 percent raises while the cost of living is increasing at a higher rate? Salary increases are not designed to cover the cost of living increase, but they have exceeded it in recent years. President Cohon does consider salaries a high priority. “We’re living in a really tough time for higher education,” Smith said. Health care benefits costs are increasing. In fact, the university has absorbed almost 1 percent of the increase.

Could the university and winter weather delays or cancellations to address the issue of staff members who must travel long distances to work? PTO provides all staff members with the flexibility to not come in when the weather is bad and most departments can accommodate flexible scheduling. “It’s unusual for large Pittsburgh employers to close,” Smith said.

Could you explain the job reclassification process?

1. A staff member and his/her supervisor complete a position description form.
2. An HR representative reviews it.
3. He/she may conduct a desk audit to understand specific skill levels of the PDF. The level of judgment and decision-making according to the Fair Labor Standards Act determines whether an employee is exempt or non-exempt. In most cases, non-exempt positions are those at grade 6 or lower and job grade 9 and higher are exempt positions. Job grades 7 and 8 can be either exempt or non-exempt.
4. The job Evaluation Committee, comprising business managers from across campus, reviews the request.
5. A staff member is notified of the committee’s decision and/or providing other comments. Reasoning for the decision should be part of this notification.

How are job classifications updated, especially for technical positions? They are reviewed periodically, but not in a required way. Typically, policy changes generated all of the time, especially in the technical areas. New classifications are generated with some involvement of the salary survey information and position description forms.

If you are a current staff member apply for several positions on campus for the opportunity to interview?

Every year, Carnegie Mellon receives 14,000 to 16,000 resumes for approximately 300 open positions. In 2003, they were 40 percent clerical/secretarial positions filled externally and 60 percent positions filled internally. “It’s a very competitive market,” Smith said. Staff members should take advantage of career counseling opportunities that Human Resources offers.

Are there changes to the pension plan?

The university contributes 8 percent to each employee’s retirement account. While participants in the Tax-sheltered Annuity Plan are not required to pay any income tax on earnings, there is no matching requirement. “We believe our plan is competitive as it’s structured,” Smith said.

Has there been interest in an employee to staff turn over among support staff on a unit by unit basis?

This data is not tracked by unit, but is tracked by groups (technical vs. clerical staff). The turnover rate among clerical workers is about 8 to 10 percent — not a significant rate and it is in line with local and national rates. The number of internal vs. external employees hired is not examined by unit either.

Has the university examined the Port Authority Transit (PAT) benefit and do we have a say in how PAT operates? There are problems getting into Oakland and the quality of service is poor. More employees would take advantage of the benefit if these issues were addressed.

The feedback is appreciated. Human Resources will look into this issue.

Are supervisors who have high turnover rates given extra resources/staff to help or are any of these positions offered assistance?

Human Resources tries to be aware of issues that arise within the university to staff members. When a problem is reported, the reporting employee wants confidentiality maintained. This makes it difficult for us to do anything. We have the opportunity to do so, we will work with that supervisor. There are tools for such management: stress management, training (supervisory and management). We encourage discussion if there is an issue.
Earth Day always comes around
Since 1998, research and education on the environment has been one of the four basic components in Carnegie Mellon’s strategic plan. In 2002 the Board of Trustees set up a subcommittee on Environmental Strategy, based on the well justified tenet that this issue has been altered in the many aspects of research that bear on environmental issues. Early in 2003, the trustees met to discuss the need for extending Carnegie Mellon’s work in the university for the purpose of strengthening and extending Carnegie Mellon’s work in this area. The general thrust of all this would be to take on some of the solution of environmental problems and to make good on that attention by producing an environmental concern into all phases of research and instruction at Carnegie Mellon.

On the research side we have the continuin

...
A mighty crane swings over the hollow to lay a foundation

The ironworkers, the crane operator, the guys working the cement mixer — they make it look pretty easy. Load up a bucket with tons of cement, signal a guy who spends the entire day 100 feet up in the sky, swing that bucket out over the hollow and lower it down over the heads of five guys who ease it into place and pour those tons of cement into iron and wood molds. Then do it again, and bit by bit they build a building into a hillside. They worked all winter, they ate lunch outside, and they don’t even look scared.