



ADCIS SIG CBT

NEWSLETTER

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Association for the Development of Computer-based Instructional Systems Special Interest Group in Computer-Based Training

CORPORATE TRAINING AND THE LIBERAL ARTS

Norman R. Smith

Editor's Note: The following article does much to bridge the gap between the "educator" and "trainer," a gap that falsely classifies many. As an "educator," I have a great empathy for the training endeavor and want to remove the stereotype facing me.

We would like to thank Dr. Norman R. Smith and the Editor of Phi Delta Kappan for allowing us to reprint the following article as it appeared in the January 1980 issue of Phi Delta Kappan.

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Our nation is suffering through several agonies; all of them, in one way or another, are related to education. My subject here is two great areas of American education, the liberal arts and corporate or industrial training. The two are often regarded as antithetical, but I argue that they support each other. But first let me discuss the problems.

1. Productivity and job satisfaction are at their lowest ebb since researchers began to measure them a generation ago. The educational level of the work force, however, is the highest it has ever been, inevitably suggesting that productivity and job satisfaction are inversely proportional to education. This is disastrous.

Aristotle suggests somewhere that society needs wealth and civilization in order that just men might lead the good life. Without wealth, there is no leisure to contemplate justice and goodness. If one accepts Aristotle's argument, it is not hard to conclude that in a nation of diminishing wealth, fewer and fewer will lead the good life and justice will become rarer.

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Norman R. Smith manages the corporate education group in the Department of Human Resources Development of Automatic Data Processing, a Clifton, New Jersey, computer services firm.

THE CHAIR'S VIEWPOINT

Jesse M. Heines

The 1981 ADCIS Conference is shaping up very nicely from the SIG CBT's point of view. Seven papers have been submitted for presentation at our technical sessions, and for the first time this year we have also had a proposal for a panel discussion. The papers are currently being reviewed and evaluated by our Evaluation Committee, so it is too early to tell just which papers will be accepted for presentation. However, I feel confident that we will have a very strong technical program and that our award for the Best Technical Paper will be well deserved.

I have recently spoken to Dr. James Eisele in regards to facilities for our SIG meetings at the Atlanta Conference. (Jim is the 1981 Conference Program Chairperson and is on the faculty of the University of Georgia.) Facilities were a major complaint at the 1980 Conference in Washington, but I don't think we will have the same problem in 1981: this year we will hold our meetings in a room that can seat 250 people "theater style", but which can be arranged differently to accommodate smaller groups more congenially. In addition, our technical and business meetings will be held in the same room to eliminate the need to change rooms and assure that we have adequate space for all meetings.

The Conference will be held on March 2-5, 1981, at the Sheraton-Atlanta Hotel. Monday, March 2, is billed as the "Novice Preession" Day. There will be sessions on this day hosted by the SIG CBT. Dr. Harold Rahmlow of the American College has once again taken on the planning responsibility for our preession, so these will surely be well attended and beneficial for those of you who are just starting out in CBT.

The SIG CBT is scheduled to hold its main sessions on Tuesday, March 3, and Wednesday, March 4, from 1:30-5:30 p.m. The exact agenda for these sessions should be published in the main Conference announcement that

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The ADCIS SIG CBT Newsletter is published quarterly by the ADCIS Special Interest Group in Computer-Based Training. Its purpose is to encourage the exchange of information on instructional computer applications in business, government, industry, and the military.

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Articles on computer-based training are invited from all members of the training community. Manuscripts should be limited to one or two double-spaced pages and submitted to the editor.

Any opinions, conclusions, or recommendations expressed in this Newsletter are those of the authors alone. They do not necessarily reflect the views of ADCIS, the SIG CBT, the editor, or the authors' employers.

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WHO'S WHO

Natalie Lowe

One of the major goals of organizations such as ADCIS, is to bring together people with similar professional interests and provide a forum for them to share ideas. It is this sharing of ideas that has brought us to compile a list of all persons related to CBT and their projects.

It is hoped that this list will grow many fold in the coming months. As the list grows, so will our ability to make contact with other individuals involved with CBT.

If your organization and its CBT projects are not represented in the list, please complete the blank form enclosed in this Newsletter and return it to me by February 15, 1981, so that you may be included in the list to be distributed at the SIG CBT meeting at the 1981 ADCIS Conference in Atlanta. If you are already included, please check to see that your activities are up to date.

See you in Atlanta!

Name: Carol D. Bennett
Title: Director; Consultant, Specialist in CBT
Org: Computer Applications & Training Services, Inc.
Add: 344 Old Trail
Baltimore, MD 21212
Tel: (301) 825-0344

Specialization: Use of Computers to Meet Training Needs

Current Major Projects: Design and develop PLATO-based training programs for the utilities industries; develop non-specialist oriented CBT facility on the Apple II micro-computer.

Other Related Projects: Design and development of PLATO lessons in variety of areas including technical applications, home-user do-it-yourself aids, and others for businesses and other organizations.

Name: Gerald J. Blumenfeld, Ph.D.
Title: Head, Department of Educational Foundations
Org: The University of Akron
Add: Akron, OH 44325
Tel: (216) 836-8709

Specialization: Instructional Design

Current Major Projects: Master's degree with emphasis on CBE and ISD now available. University and department have on-line IIS (IBM) and PLATO terminals delivering instruction; DEC, HP and micro-computers

also available. CBE center and off-campus sites provide experience; some assistantships available.

Other Related Projects: Research integrating traditional AV and CBE.

Name: Dr. Edward E. Boas, Jr., Ed.D.
Title: Project Leader, DELTA Educational Computing Systems
Org: University of Delaware
Add: Department of Educational Development
Room 012A, Willard Hall
Newark, DE 19711
Tel: (302) 738-2160

Specialization: Educational Computing Applications

Current Major Projects: Computer-Managed Instructional delivery of criterion-referenced, competency-based, individualized instruction in Vocational Education areas of study.

Other Related Projects: Coordinate a statewide computer network to 24 secondary and 25 post-secondary and other users in Delaware.

Name: Charles C. (Chuck) Buchanan
Title: Staff Flight Training Development Specialist
Org: United Airlines Flight Operations Training
Add: Stapleton International Airport
Denver, CO 80207
Tel: (303) 398-4037

Specialization: Instructional Design

Current Major Projects: Inertial Navigation System (INS) graphic simulation of airplane flight check and associated learning resources; instructional design development systems.

Other Related Projects: Effects of learning styles on industrial training; affective objectives as a valid part of industrial training.

Name: John A. Buck
Title: Training Program Manager
Org: Federal Aviation Administration (FAA)
Add: 800 Independence Avenue, SW, APT 310
Washington, DC 20591
Tel: (202) 426-8865

Specialization: CBI Program Management

Current Major Projects: Completion of a system specification for a broad-based CBI program in the FAA.

Other Related Projects: Research and development in CBI related areas.

Name: Eli Cohen
Title: Associate Specialist
Org: University of California
Add: Teaching Resources Center
University of California
Davis, CA 95616
Tel: (916) 756-9000

Specialization: Simulation

Current Major Projects: Examining the effect of miniaturization on CBT.

Other Related Projects: Computer-assisted instruction coordinator for the campus.

Name: L. A. Conrad
Title: Supervisor, Technical Training
Org: Trans World Airlines
Add: Breech Training Academy
6300 Lamar Avenue
Overland Park, KS 66201
Tel: (913) 677-8859

Specialization: Automation Training, Airline Reservations System

Current Major Projects: Design, implementation and maintenance of passenger reservation related lessons using computer-based instruction with SCHOLAR/TEACH 3. The lessons are used for new hire and recurrent automation training system wide.

Other Related Projects: Liaison with data services programming and vendor applications.

Name: Richard W. Davis
Title: District Manager, Computer-Based Instruction
Org: Bell System Center for Technical Education
Add: 6200 Route 53
Lisle, IL 60532
Tel: (312) 983-2000

Specialization: Computer Managed Technical Training

Current Major Projects: We are developing several courses using both CMI and CAI on the PLATO system. Each course relates to some aspect of Bell System engineering or technical work. Our goal is to deliver 4,000 student weeks of training using CMI during 1983.

Name: David F. Duncan, Ph.D.
Title: Assoc. Prof. & Coord., Community Health Program
Org: Southern Illinois University
Add: Department of Health Education
Southern Illinois University
Carbondale, IL 62901
Tel: (618) 453-2777

Specialization: Health Educator, Mental Health Epidemiologist

Current Major Projects: CAI in the training of health educators; teaching health educators to use CAI in educating the public.

Other Related Projects: Mental health education; computer data base on nutrition education materials.

Name: Herbert W. Etheridge
Title: Information Services Officer
Org: The Home Insurance Company
Add: 59 Maiden Lane
New York, NY 10038
Tel: (212) 530-6227

Specialization: Data Processing Education

Current Major Projects: Purchased IIS and eight courses through IBM.

Other Related Projects: Responsible for all training for 900 MIS employees.

Name: June L. Fair
Title: Employee Development Specialist
Org: Office of Personnel Management
Add: Workforce Effectiveness and Development
1900 East Street, NW
Washington, DC 20415
Tel: (202) 632-6020

Specialization: Training Consulting

Current Major Projects: Join effort with the Federal Aviation Administration on research and development related to the application of CBT in Federal Civilian training.

Other Related Projects: Lead on Interagency Computer-Based Instruction Study Group (for Federal Civilian trainers).

Name: Robert C. Fratini
Title: Technical Training Assoc., Computer-Based Training
Org: Western Electric Company, Inc.

Add: 5151 Blazer Memorial Parkway - 213424
Dublin, OH 43017
Tel: (614) 764-5441

Specialization: Telecommunications

Current Major Projects: Development of CMI courses using PLATO Learning Management featuring CAI Learning Resources, currently for Western Electric installation and Operating Telephone Company craft personnel.

Other Related Projects: Currently conducting a feasibility study for AT&T to determine the applicability of CBT to Bell System Network Switched Services training, report due 9/1/80.

Name: Robert S. Gold, Ph.D.
Title: Postdoctoral Fellow
Org: University of Texas School of Public Health
Add: P.O. Box 21086
Houston, TX 77025
Tel: (713) 792-4364

Specialization: Health Education/Biostatistics

Current Major Projects: Computerized nutrition education; CAI in training health educators; CBT for dietitians.

Other Related Projects: Computer data base on nutrition education materials.

Name: Paul Handler
Title: Prof. of Physics and Electrical Engineering
Org: University of Illinois
Add: Coordinated Science Laboratory
Urbana, IL 61801
Tel: (217) 333-3827

Specialization: CAI, CBI, CMI

Current Major Projects: Population, food, energy, climate, labor force, agriculture on PLATO, mini-computers and the Apple, written in BASIC, TUTOR, and other languages.

Other Related Projects: Long-range climate and crop predictions, special projects relating population to food production on a country-by-country basis.

Name: Jesse M. Heines, Ed.D.
Title: Manager, Computer-Based Course Development
Org: Digital Equipment Corporation

Add: Educational Services
12 Crosby Drive, BU/E32
Bedford, MA 01730
Tel: (617) 275-5000, ext. 2339

Specialization: Computer-Managed Instruction

Current Major Projects: Development of on-line, interactive programs to train employees and customers in the use of DEC computers and computer products.

Other Related Projects: Use of microprocessors in the schools.

Name: Michael Hetzel
Title: Instructional Designer
Org: Arthur Anderson & Co.
Add: 975 Lexington
St. Charles, IL 60174
Tel: (312) 584-6389

Specialization: Instruction Design for CBT

Name: James R. Hutton
Title: Senior Education Analyst
Org: Control Data Corporation
Add: Education and Consulting
8616 La Tijera Boulevard, Room 400
Los Angeles, CA 90045
Tel: (213) 642-2453

Specialization: Computer-Managed Instruction,
Cost Worth Analysis

Current Major Projects: Needs/task analysis, problem identification and solution for business, industrial, and military training.

Other Related Projects: Marketing, sales, and management training.

Name: Michael L. Kelly
Title: Manager, Sales and Services Technical Training
Org: Trans World Airlines
Add: 6300 Lamar
Overland Park, KS 66201
Tel: (913) 677-8855

Specialization: Computer Use Training, Airline Reservation System

Current Major Projects: Second generation CBI design using SCHOLAR/TEACH 3.

Other Related Projects: On-going computer terminal use training for different airline applications.

Name: Sue Kemner-Richardson
Title: Research Associate
Org: Denver Research Institute
Add: Denver University
2135 East Wesley
Denver, CO 80208
Tel: (303) 753-2715

Specialization: Instructional Design in Training

Current Major Projects: Designing a computer-based training and performance support system for the Air Force, ESD, Hanscom AFB, Bedford, Massachusetts.

Other Related Projects: Research on "Women in Technology" through Denver Research Institute; Secretary of ADCIS Front Range Chapter.

Name: Benjamin Z. Klein
Title: Manager, Corporate Training and Development
Org: Jamesbury Corporation
Add: 640 Lincoln Street
Worcester, MA 01605
Tel: (617) 852-0200

Specialization: Training Responsibility for Industrial Mfg. Firm

Current Major Projects: Design and development of comprehensive product and technical sales training program for delivery via PLATO System Learning Center Network to field sales and distributor personnel nationally.

Other Related Projects: Also studying cost justification for using PLATO for in-house training activities such as management/supervisory, secretarial skills, financial management and other packaged courseware available on PLATO system.

Name: Natalie Lowe
Title: Project Leader, CBE Consultant
Org: Aetna Life & Casualty
Add: CDP Consulting, C110
151 Farmington Avenue
Hartford, CT 06156
Tel: (203) 273-2119

Specialization: Insurance

Current Major Projects: Develop CAI courses, using IIS Coursewriter III, including tutorial and simulations. Courses are being developed for Casualty, Group, Life, and Corporate Division employees in field offices and the home office. During 1981, approximately 16,000

hours of training will be provided via 19 computer-based education courses.

Other Related Projects: Seminars and demonstrations to inform all facets of the company regarding the availability and potential use of computer-based education.

Name: Wendy Mackay
Title: Senior Educational Specialist
Org: Digital Equipment Corporation
Add: 12 Crosby Drive, BU/E32
Bedford, MA 01730
Tel: (617) 275-5000, ext. 2115

Specialization: Experimental Psychology

Current Major Projects: Design and implementation of CAI courses for Digital Equipment Corporation; doctoral work on concept formation and multiple organizations of stimulus classes.

Name: Ken Modesitt
Title: Corporate Education Director
Org: Texas Instruments
Add: P.O. Box 225012, MS 23
Dallas, TX 75265
Tel: (214) 238-2524

Specialization: Educational Needs and Strategies for High Technology Corporation

Current Major Projects: Long-range planning for internal TI training at all levels, educational assistance, course delivery on PLATO and TI equipment, instructional design.

Other Related Projects: Training concerns of a high technology industry; cooperation with other industries, universities, and government.

Name: Jeff Moonen
Title: Senior Staff Member
Org: University of Leiden
Add: Department of Psychology
Hooigracht 15 Leiden
The Netherlands
Tel: (071) 148333, ext. 5126

Specialization: Statistics

Current Major Projects: Comparing the development of CAL material in statistics on an IBM 370/158 and an IBM 5110 (using APL) versus the development on the PLATO system.

Other Related Projects: Organizing CAL activities at the University of Leiden.

Name: Harold F. Rahmlow, Ph.D.
Title: Professor of Education
Org: The American College
Add: 270 Bryn Mawr Avenue
Bryn Mawr, PA 19010
Tel: (215) 896-4532

Specialization: Insurance Education for Professionals

Current Major Projects: Computer-managed instruction course in research methods, computer-based education workshop.

Other Related Projects: Survey of CBT in insurance and other related areas.

Name: CPT Gary C. Ritter
Title: Operator Tactics Trainer Project Officer
Org: U.S. Army Air Defense School
Add: USAADS Directorate of Training Developments
ATTN: ATSA-TD-CDI
Fort Bliss, TX 79916
Tel: (915) 568-3055 or AUTOVON 978-3055

Specialization: Patriot Air Defense Weapons System Course Development

Current Major Projects: USAADS is procuring the prototype Patriot Operator Tactics Trainer under contract to Sanders Associates. This trainer consists of two DEC PDP-11/60 computers, eight student stations, instructor station, ANS scenario generation equipment.

Other Related Projects: In the beginning stages of establishing a large computer-based education system (at least 18 PDP-11/60) to be fully operational in 1984-1985 time frame.

Name: Jim Schuyler, Ph.D.
Title: Chairman
Org: DesignWare Inc.
Add: P.O. Box 14664
San Francisco, CA 94114
Tel: (415) 621-8237

Specialization: Courseware and Software Contract Program; Video Cassette and Disc Authoring Systems

Name: Gene H. Sessamen
Title: Principal Training Technician
Org: New Jersey Department of Labor and Industry
Add: P.O. Box 508, Room 1214
Trenton, NJ 08625
Tel: (609) 984-3576

Specialization: CBT and Development of Other Self-Instructional Materials

Current Major Projects: CBT for employees in 150 local offices throughout New Jersey, using data entry terminals on off-hours. Development of training centers utilizing study carrels equipped with display terminals and video players and monitors.

Name: Michael Szabo, Ph.D.
Title: Director, Instruction Support Center, Assoc. Prof.
Org: Penn State University
Add: 201 Chambers Building
University Park, PA 16802
Tel: (814) 865-0471

Specialization: Computer-Managed Diagnostic and Prescriptive Testing

Current Major Projects: Director of CMI operation in a major college of Education. Consultant on CMI to developing open university. Recently completed a course for government using existing instruction with CMI wraparound. Recently completed a CAI course for GED students on PLATO.

Name: George F. Traynor
Title: President
Org: Courseware Applications, Inc.

Add: 1489 Fairmount Avenue
St. Paul, MN 55105
Tel: (612) 690-3834
and
Add: 206 Burwash Avenue
Savoy, IL 61874
Tel: (217) 359-1878

Specialization: Computer-Based Instruction

Current Major Projects: Courseware production on and for the PLATO and Apple computer systems including subject areas as equipment simulation, foreign language instruction, aerodynamics, computer-peripheral troubleshooting and maintenance, accounting and finance, etc.

Other Related Projects: Publication of "Beginning TUTOR", an introduction to programming in the TUTOR language; conduct beginning and advanced TUTOR programming workshops; provide courseware development services on an as-needed basis.

Name: David Weitz
Title: Project Manager
Org: Boeing Computer Services
Add: Education and Training Division
P.O. Box 24346, MS 9A-90
Seattle, WA 98124
Tel: (206) 575-7413

Specialization: Computer-Based Instruction

Current Major Projects: Project manager for development and installation of CBI systems for Western Bancorporation, First National Bank of Chicago, and Guaranteed Student Loan Program. Project manager for development of SCHOLAR/TEACH 3 computer-based instruction system.

Other Related Projects: Conduct symposium and seminar on CBI development.■

CORPORATE TRAINING

(Continued from page 1)

2. Despite the increasing educational level of the work force, the average worker entering the job market today cannot spell, cannot structure an English sentence, and does not know Hannibal from Ho Chi Minh. For me, the latter fact is perhaps most alarming. History is a diary of human error, an endless chain of failed solutions to human problems. The ignorance of history is the ignorance of the past from which we all spring; it therefore is related to ignorance of self, ignorance of one's own humanity. The most dangerous people alive are those who lack self-knowledge.

3. The greatest labor shortage in the work place exists in the management area. Management, in its ideal form, is a combination of organizational ability and compassion. The former is an obvious need; the latter is necessary because the manager does his work by motivating others to work. You can motivate by cracking whips over people, but in a highly mobile work setting you'll soon lose your workers and end up spending all of your valuable time recruiting and training. Compassion, then, the ability to make people want to work, to feel good about doing the work, is crucial.

From what I have said thus far, it should be obvious why management is in trouble: Whatever is going on in education is not conducive either to development of organizational ability or to compassion. The point about history is important here. It is hard to read history and not feel sorry for suffering humanity, not develop compassion. But we don't read history, and we find it very easy to be cruel.

4. There is a vast untapped pool of talented people with both organizational ability and compassion, but the great majority of these people will be prevented from realizing their potential. I refer to the tens of thousands of men and women who have prepared themselves for advanced teaching, only to discover that not only were there no college teaching jobs to be had but that the rest of the economy was not much interested in them either.

Education is, in fact, one of the first jewels of the good life to have been tossed aside because of our diminishing wealth. Education is, in fact, not a necessity but a luxury, a way societies reward themselves and exalt themselves for having worked hard and grown rich. A splendid library or research facility is a way of celebrating national success. Sending the brightest youth of the land to spend four carefree years in the manicured paradise of a great university is a way of expressing pride in our accomplishments. The same is true of subsidizing talented scholars to work in these libraries and research facilities, and to contribute their findings to the fund of human knowledge. It's all a grand and marvelous display of

wealth, a quintessential luxury, and in times of financial crisis the luxuries are the first things to go – most of us control our own finances no differently.

Thus these thousands of talented men and women find themselves classified as superfluous luxuries; they are cut off from their life goals. That in itself is not disastrous: Very few of us have the privilege of doing exactly what we'd like to do, and I see no immediate reason to feel any more sympathy for a jobless Ph.D. than I feel for jobless aerospace workers, Vietnamese translators, or automobile assemblers.

What really is disastrous is the fact that jobless trained scholars are cut off, for various reasons, from other responsible jobs. That is truly criminal, truly wasteful. For anyone who has completed a Ph.D. has not only shown terrific organizational ability but in all likelihood has developed, through familiarity with humanistic disciplines – anthropology, psychology, literature, language, history – that all-important compassion I mentioned. If nothing else, someone who has worked so hard for something respects and understands hard work and achievement. I would even argue that someone who has worked so hard, then fails to achieve the ultimate goal of a university post, has a sad wisdom about human struggle and tragedy that will engender compassion.

The most practical alternative to academe for a scholar is the business world. Our problems of productivity, organization, and compassion are not going to be solved by government regulations or edicts. They are going to be solved, if they are solved at all, by talented and inventive managers in the private sector. Management, therefore, needs those highly motivated people who can no longer be accommodated by academe.

The problem is that it won't happen. There is so much bad blood between the business world and academe that an applicant who walks into a corporate personnel department with a Ph.D. on his resume is doomed. (It has occurred to me that one could plead that having a Ph.D. is a disability – you could get some interesting equal employment opportunity cases out of it.) To a business employer, the Ph.D. is an egghead, an impractical idealist, a misanthropic loner ill-suited to the constant interpersonal jostling of the corporate environment. The Ph.D. is overqualified – overtrained in fields of knowledge irrelevant to business – while undertrained in such things as budgeting, scheduling, and motivating. The pity of it is – and I speak now as a scholar, a Ph.D. who suffered through all the agonies I've been speaking of – that the business employer is probably right, and that is another problem I feel compelled to lay at the feet of education.

Let me explain. I start from this premise: Though you will find it stated in no annual report or corporate policy statement, it is the purpose of private business to provide society with wealth, not only to feed, clothe, and house

the populace but also to provide the benefits of the "good life" – of art, music, literature, research, of education. And it is the purpose of education to provide an environment in which the populace can be trained to understand the "good life", to prefer the good to the mediocre, to appreciate beauty, to perceive the difference between the clear and the muddled. In short, I perceive business as that element of society which allows us to afford civilization and education as that element of society which civilizes us. John Henry Cardinal Newman worked out these ideas most eloquently a hundred years ago, and his ideas are just as valid today. Newman distinguished between the forms of knowledge needed by commerce and business, which he called mechanical and useful knowledge, and liberal learning. Of the former disciplines he writes, "Life could not go on without them; we owe our daily welfare to them." The goal of the latter is the "training of good members of society."

Newman distinguished between practical knowledge and liberal knowledge, and yet he saw an important connection that I feel American education has frequently forgotten. Newman argued passionately that liberal education is useful, that the liberally educated person is highly prepared for the practical tasks of the world. Let me quote at length:

Educated men can do what illiterate cannot; and the man who has learned to think and to reason and to compare and to discriminate and to analyze, who has refined his taste, and formed his judgement, and sharpened his mental vision, will not indeed at once be a lawyer, or a pleader, or an orator, or a statesman, or a physician, or a good landlord, or a man of business, or a soldier, or an engineer, or a chemist, or a geologist, or an antiquarian, but he will be placed in that state of intellect in which he can take up any of the sciences or callings referred to, or any other for which he has a taste or special talent, with an ease, a grace, a versatility, and a success, in which another is a stranger. In this sense then ... liberal culture is extremely useful.

In my opinion, this statement should be memorized by educators the way doctors memorize the Hippocratic Oath.

American education has strayed pretty far from Newman's notion of the pursuit of liberal knowledge. On the one hand there are the useful and mechanical disciplines, the programs in engineering and accounting and commerce, programs which, in their specialization, tend to develop minds quite capable of manipulating reality as it

pertains to these narrow areas, but limited in terms of the broader view of the human condition. On the other there are the liberal arts disciplines, the professors of which seem often to have forgotten the fact that liberal knowledge is ultimately supposed to be useful. The professors of the liberal arts often seem bent on the creation of a caste of cultural priests.

I would like to pursue for a moment the implications of this statement. From his earliest contacts with liberal arts programs right up through the highest graduate levels, the student is taught that there is something tainted about the useful and the practical, that there is something sordid about commerce and industry, and that the only worthy occupation is the transmission of knowledge. Students often receive these ideas from people who are highly successful in the academic world, people who, through their great teaching talents and their personal charm, can command respect and make their ideas seem very attractive. After spending the formative early adult years in such an environment, the liberal arts student is often left with a world view that limits his ability to cope with an economy that does not allow everyone with aspirations to become a cultural priest. This is what I meant when I suggested that the business employer was right in his assessment of the trained scholar – for despite the scholar's possession of tremendous organizational abilities and a sympathy for the human condition, the scholar has been nurtured in an environment that is hostile to business. Business, naturally, is aware of this, and is suspicious of the ex-scholar job applicant. It all adds up to an apparently insurmountable wall of prejudice and misunderstanding – and to a great waste of potential.

If traditional education is failing to produce liberally educated men of affairs, can corporate training programs take up the slack? It seems unlikely. Corporate training (or corporate education, training and development, human resource development, etc.) is a large and growing sector of business; some estimate that it already teaches as many students as the universities. Unlike liberal education, however, it has very narrowly defined objectives; it is really what Newman meant by mechanical and useful studies. Its purpose is simply to elicit in the trainee constructive on-the-job behavior and to increase productivity. Its goal is most emphatically *not* the pursuit of general knowledge; in fact, in most good industrial training material, whether prepared for classroom or textual instruction, any information that does not affect on-the-job performance is deleted. Such information is considered confusing to the trainee (who, after all, really only wants to do the job better), as well as cost-ineffective. It is expensive to produce training material, and the less knowledge one needs to convey in order to instruct a trainee the better.

This is a greatly simplified version of what corporate or industrial training is all about, but I think it is sufficient. Short of discussing at length various behaviorist notions about the reinforcement of improved performance, or discussing branching versus linear programmed instruction, or video versus textual training packages, and so on, all we really need to do is keep in mind Newman's division between the liberal and the useful. Industrial training focuses on the useful. It is a focus that is perhaps alarming to many in the liberal arts fields, and one might ask if there isn't something dehumanizing about this narrow interest in the nuts and bolts of work to the exclusion of interest in general knowledge.

I don't think so. Work itself is purely human, and giving people the opportunity to improve their work provides them with the opportunity to realize their potential and grow. This fact alone makes industrial training a humanizing force. But in our present difficult times, training has several other important humanizing aspects. In a time of diminished wealth and slowed growth, it is difficult to motivate the work force; thus fuel is added to the smoldering fire of reduced productivity. Turnover increases, adding immeasurably to production costs and inflation, as well as creating a vicious circle of confusion and anxiety: The new people hired to fill vacated positions are given increasingly complex assignments without the supports of high salary and sufficient preparation. Training presents an admirable solution to these problems. When budgets and anti-inflation policies prevent corporations from rewarding employees with money, workers can be rewarded with training. An employee chosen for training feels privileged and important, feels as though the company cares about him. (And the company *does* care, for high-quality training requires major commitments of funds and talent.) Furthermore, there is abundant evidence that training achieves its primary goals, which are to increase productivity and reduce turnover. Ultimately, these phenomena will produce the most humanizing effect of all: Real (and not *inflated*) wealth will once again begin to increase, and society will be able to channel its riches back into education – into schools, universities, libraries, and research facilities. In short, I think that in a world of breathtaking inflation, slowed growth, energy and resource shortages, and the usual run of explosive international problems, industrial and corporate training is a cause for hope, a bright spot on the horizon.

But not as bright, finally, as the traditional liberal arts. Real human progress occurs when the minds of men and women are expanded and freed from the prejudices of the present, of the environment, of the social and political milieu; when inquiring intellects consider not only what is believed now but in the past, consider the beliefs not only of like-minded spirits but those of opposing spirits as well. We have inherited from the Industrial Revo-

lution a tendency to think of progress in material terms, in terms of improved steam looms and faster computers, without considering the revolutions that first had to take place in people's minds before our Industrial and Post-Industrial Revolutions could occur. Yet a case could be made that without Aristotle, Descartes, and Machiavelli, the computer and the steam loom would never have evolved. Not only does it take a liberally educated mind to realize this, it will take liberally educated minds to push beyond what are currently perceived as the limitations of human potential and carry humanity forward on a new wave of spiritual progress. Spiritual progress is clearly what we need, if technical progress can carry us to the moon and back without putting an end to poverty or solving the energy crisis. And spiritual progress is the highest goal of liberal studies.

This probably sounds vague and grandiose. What, after all, is my program? I think I can state it very simply. Like Newman, I have argued that at the adult level there are two kinds of education, the liberal and the useful. While I do not mean to suggest that educational institutions should ignore useful studies, their domain is properly the liberal, and we should maintain whatever requirements for courses in English, history, and the languages still survive in the schools of accounting and engineering. By the same token, I would hope that teachers of the humanities will divest themselves of the notion that their students are selling out if they happen to pursue any career other than teaching those teachers' specialties. As I argued earlier, liberally educated people are potentially strong managers and motivators, but not if they've been trained for years to look down on business.

Useful education, or training, is something that can be handled very nicely by corporations, and since a corporation can train a student in exactly what he needs to know in order to perform a specific job, perhaps this is the best setting for job-oriented training. The ideal I envision would be a situation in which men and women with a good basic background in our language, literature, history, and culture – people who can conceptualize, reason, and solve problems – people with a sympathy for the human predicament – come into corporations and pick up the specific job knowledge they need through corporate training programs.

This is not happening now; the prejudice and mutual distrust between university and corporation have been preventing it. If we can bring ourselves to realize the intimate relationship between liberal and useful knowledge, between traditional and corporation education, we can overcome these prejudices and tap vast reservoirs of human energy. Such a synergism could just save us from the fate to which Bernard Shaw prematurely consigned America: the first nation to go from barbarism to decadence without an intervening period of civilization.■

THE CHAIR'S VIEWPOINT

(Continued from page 1)

you should receive early this year. We will try to implement all of the suggestions made at last year's Business Meeting for improving follow-up to Conference activities. Specifically, we will have sign-up sheets for informal get-togethers, names and addresses of presenters printed in the Conference Proceedings and/or available at the Conference, and copies of back issues of our Newsletter. Additional suggestions are welcomed and should be sent to me.

A good deal of activity has happened since our last Business Meeting, but not all of the Committees have followed through. Following is a summary of Committee statuses as I currently see them. Committee Chairpersons should contact me with updated reports by February 1, 1981, so that we can move smoothly to finishing up old business at the Conference.

Workshop Committee (Harold Rahmlow, Chairperson). 1981 Novice Pre-session is completely planned. All persons involved have confirmed their roles. Plans for an ADCIS Sponsored Workshop are pending actions at the 1981 Conference.

Standards Committee (Jim Hutton, Chairperson). Jim Schuyler and Jim Hutton had planned to work together to revise the AECT "Competencies for Program Developers" into preliminary standards for developing CBT materials. This preliminary document should be submitted to me by February 1, 1981, to allow time to have it copied for distribution and review at the Conference.

Who's Who Committee (Natalie Lowe, Chairperson). Our first compendium of responses to our Who's Who Questionnaire is being distributed with this issue of the Newsletter. A questionnaire form is enclosed in this

package. New and old members are asked to complete this form and return it to Natalie. A second Who's Who list will then be compiled and distributed in about one year's time.

Awards/Publications Committee (Jesse Heines, Chairperson). Three more issues of this Newsletter have been published since our 1980 Conference. This marks our third year of consistently publishing the Newsletter each quarter. Thomas Rebstock was awarded a briefcase for making the Best Technical Presentation at the 1980 Conference.

Papers submitted for the 1981 Conference were distributed to the Evaluation Committee and results are currently being compiled. Presentations will be evaluated at the 1981 Conference as they were in 1980, but presenters will first be asked if they want to be considered for the award. (The purpose of this action is to prevent undue nervousness on the part of anyone who would rather not be evaluated. The purpose of the evaluations is to encourage professional presentations, not put anyone on the spot.)

Governance Committee (Jesse Heines, Chairperson). This committee was dissolved after the acceptance of the revised Bylaws, but the change in election procedures requires that a Bylaw change be discussed and voted upon at the 1981 Business Meeting.

My final point this quarter is not as controversial as it has been in previous issues. I simply want to encourage each of you to vote in the upcoming election. I have personally been very proud to have led the SIG CBT through its first three years, and I hope that we have set the stage for many worthwhile activities. But, as always with volunteer organizations, these activities need follow-through. The role of the officers is all important. Please consider your vote important and participate in the upcoming election. ■

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(Address Correction Requested)

COMPUTER-BASED TRAINING WHO'S WHO

Please return to:

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Name _____

Title _____

Organization _____

Address _____

City/State/Zip _____

Telephone _____

Specialization _____

Current Major Projects _____

Other Related Activities _____
