

## **“Impact”**

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JW: This is impact. Describing new ideas, developments, programs, and activities from our public higher education system that impact our lives as Michigan citizens. I'm Jim Whitman. Aptly named for the angels that carry heavenly messages, project seraphim out of Eastern Michigan university is carrying the message world wide that chemistry subject matter can be taught and learned easier by computers. Funded by the national science foundation, the project acts as a clearing house for software that's then distributed, according to Director John Moore, all over the world.

JM: That's correct. We have regional centers at different locations in the country. We have one in Cleveland, Pittsburgh, California, and we also have some international distribution centers. One in The people's Republic of China, France, Italy. That Italian Chemical society is taking our materials and translating them into Italian, and distributing those in Italy.

JW: John, is chemistry a subject that particularly lends itself well to what they call CAI, or computer assisted instruction?

JM: Yeah, it does because an introductory chemistry student has to learn a new language, the language of chemistry, and they have to learn several other things as well. They have to learn new concepts, new ideas as well as this language, and it's hard so it take a lot of practice, and a computer can handle that. It can repeatedly give students questions and check their answers, and so on, which a real teacher wouldn't have time to do because a real teacher has to deal with a lot of students and generally is busy.



JW: Now seraphim acts as kind of a clearing house for computer software for school systems throughout the world. But the clearinghouse function is not the only function.

JM: no, it's not. There are two other functions. One is the function of workshop programs to train teachers to use the computer based materials because many teachers were not trained in this sort of thing when they were in college. Obviously the computers weren't there at that time. They may be a little leery of using something that they aren't used to and so we tried to build up a workshop program that would allow them to work with another high school chemistry teacher who has used computers extensively and learn how to do it. This has been very affective. I think we've reached over 3000 teachers in that program so far.

JW: As another effort of the project, you're also developing new programming as you go along. Tell us a little bit about that.

JM: That 's exactly right. We thought that we'd like to see some new kinds of computer programs. you mentioned before CAI, and that is the standard way of using computers to drill students on things they need practice on. But what we're trying to do now is to construct computer tools that students can use to learn about chemistry and one example of this is that we've constructed a program that behaves like a scientific instrument. The computer gets turned into an instrument that might cost many thousands of dollars. The student can first learn on the computer before using the real instrument or perhaps even just get an experience using the computer that would not otherwise be possible.

JW: John, what's the bottom line on what you expect project seraphim to eventually accomplish?

JM: We're hoping to provide a new and more effective way for students to learn about chemistry. The amount of chemistry that there is to learn is just growing by leaps and bounds. One of my things that I'm



trying to solve is that our ability to teach material isn't growing as fast as the material itself that we have to teach. I felt that the computer would perhaps provide a way of taking over some of the tasks, maybe automating some of the tasks we have to carry out so that we can do other things better in the class room and perhaps train chemists who are going to be very important in our economy in the future more rapidly and more thoroughly than we were going to do before.

JW: All the software and written materials distributed by Project Seraphim are provided at cost. In addition, financial support is available for Project fellows all over the world to spend the summer at Eastern doing research or working on a specific project, all to improve instruction. My guest has been Eastern Michigan Universities John Moore. Thanks for joining us on Impact for the presidents council of State colleges and Universities, I'm Jim Whitman.

JW: This is impact. Describing new ideas, developments, programs, and activities from our public higher education system that impact our lives as Michigan citizens. I'm Jim Whitman. Michigan is no different from any other state when it comes to problems related to substance abuse. Our public higher education community is doing more about it than most states. Wayne State University's Addiction Research Institute , formed last year in cooperation with the city of Detroit and state organizations is a good example. Institute director Gene Schoener explains why it's like very few other such institutes in the world.

GS: We are developing around a relatively targeted focus at the beginning. That is we're targeting issues of policy and community based prevention. We hope to establish ourselves with rigorous scientific study as an institute of high credibility and competence and to build out from there into other areas that represent applied science if you will. The purposes and potential of this institute really are in that areas on bringing science to issues that are really important to people today.



JW: Can you give me some examples of some of the research on policy and prevention?

GS: On the areas of policy and prevention, one of our studies has to do with the impact of varying amounts of consumption on damage. For example, if there are changes in price. If the cost of a fifth of scotch doubles, then it is highly likely impact on the amount of consumption of that scotch. The amount of consumption has a statistical relationship on the amount of damage in terms of auto accidents, sorosis, and a variety of other damage variables.

JW: So you're looking at several causes and effects?

GS: That's right. Causes and effects of alcohol in particular. Another area of real interest is community-based prevention. Very little has actually been established in this area. A lot of people are doing a lot of things that they call prevention, but in fact very little has been documented. We don't know if what you're doing and calling prevention is truly preventing problems with substance abuse. So our efforts are to establish a model community based prevention program here in Detroit and to document it. The effectiveness of it, the variability from community to community, and to define models that can be transported to other communities.

JW: When the institute does become what you are hoping and anticipating, what do you hope will be it's ongoing impact?

GS: It will have an ongoing impact. Hopefully it will continue to work in this area of community based prevention and expand those services. I am hopeful that we will provide services to the treatment community in terms of assessment and referral. I hope that we're able to provide them with program evaluation so that they can improve their services to the people who most need them. I'm hopeful that we



will expand into treatment outcome area so that in general treatment is improved for citizens. This is a truly scientific enterprise we're in.

JW: Schoener feels that over the next few years, the institute can develop into a nationally recognized, multiply disciplinary center for addiction studies, and then maybe someday the very ideology of substance abuse can be understood and dealt with. My guest has been Wayne State University's Gene Schoener. Thanks for joining us on Impact for the President's Council of State Colleges and Universities, I'm Jim Whittman.

JW: This is Impact. Describing new ideas, developments, programs, and activities from our public education system, that impact our lives as Michigan citizens. I'm Jim Whittman. Now in its third year of operation, Western Michigan University's program for disadvantaged students has been aiming to improve the graduation odds of those students determined in some way at a disadvantage in college. Special Services Program Director Trudy Stoffer, explains what that means.

TS: Basically what we do is use the Federal definition. Disadvantaged students are those who have a physical handicap. And that includes learning disabilities, and those who have come from families which are low income families and also the Federal government includes in that definition those students who come from families where neither parent has earned a college degree.

JW: What they call first generation college students.

TS: That's right. That's the term that's usually applied to them. Those are the three categories. The physically handicapped, the low income, and the first generation college students. The reason they are called disadvantaged is that...the notion is that somehow in their economic or educational backgrounds they've had subtle disadvantages to overcome. Therefore they're at greater risk when they come to a



university of actually graduating from the university. It's a federal program and the definition comes from the federal government.

JW: You have a program staff in this project. How many are there and what is their function?

TS: Our staff consists of four part-time coordinators. We have a person who coordinates the tutorial center and oversees the tutorial services. Each of our students is eligible to receive up to four hours of tutoring in any academic course they are taking at the university. Her function is to oversee the tutoring that is offered to the students. We also have a coordinator whose function it is to oversee the program we have set up for the learning disabled students. We have another coordinator, these are all part-time positions, who oversees our study-skills program. Our fourth coordinator is the critical reading coordinator. She oversees the workshops we have in effective college reading and in vocabulary building for the students. The only full-time member of the staff is myself, who directs the entire program.

JW: How do they plug into it? Are they voluntary or are they referred, or both?

TS: Actually there are three ways. We do have students referred to us by a sensitive instructor. We also have students who voluntarily come in and ask if they are eligible because they know about the program. But primarily we do our own screening. At freshman orientation we distribute a questionnaire that identifies all the first generation college students. We then have the financial aid office take that list of 800 some names and we screen who among these students is also a low income. We are finding our eligible pool right there. We then further take a look at their placement test scores to see who among these students have academic needs. Then finally as we begin to narrow this pool, we then contact them. We send them a letter telling them they are eligible for our services should they want them or need them. Then they come in and make contact with us through an interview.



JW: How many of those to whom you send letters actually take you up on the program?

TS: I'd say 15-20% actually take us up on it through the first mailing. Then we always follow up with telephone contact and hit more. Basically this year we are doing very well. We identified...I'd say we have about 50% of those whom we identified as eligible for this academic year already enrolled, and it's only mid-semester. Again, it's a matter of developing a program and making yourself very visible. And I think that has happened.

JW: While the student's academic need is the first goal of the program, Stoffer says the particular financial, personal, and counseling needs of each of these students are also addressed. She has four part-time coordinators to help with the program, currently funded by the US Department of Education through June of 1987. My guest has been Western Michigan University's Trudy Stoffer. Thanks for joining us on Impact for the President's Council of State Colleges and Universities, I'm Jim Whittman.

JW: This is Impact. Describing new ideas, developments, programs, and activities, from our public higher education system, that impact our lives as Michigan citizens. I'm Jim Whittman. A lot has happened in the 50 years since the great Flint sit-down strike of 1936-7. For 44 days back then, nearly 3,000 General Motors workers struck. When it spread to the Chevrolet engine plant, GM was paralyzed. The result was instrumental in creating modern industrial unionism in America. The University of Michigan-Flint's Neil Laten, director of the Labor History project, says the survivors of the strike still have strong feelings.

NL: All of the old timers that we've spoken to have almost a sense of reverence for the union. They lived and died with it. They fought for it, for much longer than 44 days of course. For 50 years. So they are very hesitant to do anything that would injure the labor movement in anyway. That's not to ?? the question. A great many of them are perhaps disappointed in the direction of union management



cooperation and quality of work life programs. They grew up in a period of adversarial relations. They remember some of the more militant and are more politically aware. The lessons they learned about being class conscious. Being a member of a working class. So I think a good many of them look ??? at some of the new movements. Many of them are unhappy about the Saturn arrangement for example. On the other hand, their argument is always that if you don't like it change it from the inside. They're not about to throw the baby out with the bath water.

JW: Neil, obviously this 50<sup>th</sup> anniversary of the sit-down strike will not go unnoticed here in Flint. What are some of the things that have happened and that are going on that are being done to commemorate this anniversary?

NL: The union itself is doing a number of things. But the university here has been planning for about a year and a half. An inter-disciplinary group of political scientists, historians, and theater people, got together to create an original production. It's tentatively entitled The 1937 to 1987 Past to Future. The play will premier on February 11, 1987, which is the 50<sup>th</sup> anniversary of the settlement of the strike. However, in many ways it's a community based project. Throughout the fall there have been skits presented local in the school system all to get reaction from people. There's been original music produced, which was recorded on an album, that will be for sale in February. Also, this month, there will be performances given in shopping centers locally as well. In addition to that, and perhaps equally important, is a video production. A documentary which will be about an hour long. We see the project obviously as more than just a theatrical production. It's a means of providing members of what's really a working class community, providing them a means to recapture their own history. It's working people history that's really dropped through the cracks in the floor. One reads about the famous industrialists and that and that. Usually the people who write that history are people like you and me. Middle class, college graduates, and so on. But working people have not. This is a chance for them to become re-aquainted with it. Hopefully a sense of solidarity to face the hard times which are coming. The question



of plant closings, shifts in the economy and so on. That really is our purpose. To get these people involved in this production is equally as important as the production itself.

JW: Each summer for 11 years the surviving sit-downers have had an annual picnic in Flint. But with the ranks thinning now, according to Laten, this past summer's picnic was probably the last. Still the 50<sup>th</sup> anniversary of the strike this winter will allow the survivors another opportunity to reminisce. My guest has been University of Michigan-Flint's Neil Laten. Thanks for joining us on Impact for the President's Council of State Colleges and Universities, I'm Jim Whittman.

JW: This is Impact. Describing new ideas, developments, programs, and activities, from our public higher education system that impact our lives as Michigan citizens. I'm Jim Whittman. As part of Michigan's 150<sup>th</sup> birthday celebration, we're taking a special look at each of our 15 public 4 year colleges and universities, and seeing it's place and it's impact on the history of higher education in Michigan. On this edition of Impact, we focus on Northern Michigan University in Marquette. Russ Magnaghi, History Professor at Northern, says it all started with a need for teachers in the Upper Peninsula.

RM: The university was established in 1899, but originally it was started a Normal School, or teacher's college, and it was started during the boom days of the Upper Peninsula when copper and iron mining were going full blast. Lumbering was an important industry. There was a need for a teacher's college. Prior to this time, any of the teachers in the Upper Peninsula had to travel down state. In the beginning there was a great deal of competition among the various communities in the Upper Peninsula. Finally Northern got it. There were some local people that provided monies. The Longyear family provided land. There's kind of an interesting feature about the establishment of Northern, that was that in the legislation, the legislature said the college had to be on the street car line. We had a street car line at that time. Longyear provided the land on the street car route so students arriving by train could transfer to a street car and get right to the college. It was a unique development of the early day.



JW: What were some of the steps since that time in it's evolving into a four year liberal arts baccalaureate institution?

RM: I think it was in the 1920s that it went to a four year college giving the baccalaureate degree. Then from that time until the 1960s, and this is true of all your teacher's colleges across the country, it remained relatively small. Through the 1960s it had a population of about a maximum of 1,000. It would fluctuate. World War II the population dropped. The enrollment stayed around 1,000. Then in the 1960s there was a great move to expand the teacher's colleges from just being a teacher's college to adding other colleges, nursing, business, and so on. So it was at that time in the mid '60s that Northern expanded. It went from a college of about 1,000 very quickly up to about 6,000 in a matter of 2 or 3 years.

JW: What about more recently now? There have been some things that have happened that really put Northern on the map.

RM: Northern has looked to expand it's presence and activity within the community of the Upper Peninsula, but also for the state and mid-western region. There's been moves to bring in new programs and new developments. One is the US Olympic Training Center. This was established in 1985. It's in the process of growing and developing. But these are the areas that the university is moving into. A whole new area combining sports with the academic programs and academic setting. This training center is the first on a college campus in the United States. This provides the athletes the opportunity to not only train, but also get in an academic program.

JW: Magnaghi says Northern has left it's ivory tower image. And has interacted effectively with the community assisting in the economic development of the region and promoting tourism. Something the sesquicentennial celebration will be helping. My guest has been Northern Michigan University's Russ



Magnaghi. Thanks for joining us on Impact for the President's Council of State Colleges and Universities, I'm Jim Whittman.