REFORT RESUMES

ED 017 742 INFORMATION SYSTEMS, A VEHICLE FOR DIFFUSION OF EDUCATIONAL IDEAS. BY- WILSON, CELIANNA I. FUB DATE MAR 68 EDRS FRICE MF-\$0.25 HC-\$0.64 14F.

DESCRIPTORS- #INFORMATION SYSTEMS, #INFORMATION DISSEMINATION, #DIFFUSION, INFORMATION UTILIZATION, FROGRAM DESCRIPTIONS,

INFORMATION SYSTEMS CAN OFFER A DELIBERATE MECHANISM FOR THE DIFFUSION OF EDUCATIONAL IDEAS. TO ACCOMPLISH THIS, THE FOLLOWING FACTORS MUST RECEIVE ADEQUATE ATTENTION--(1) THE ORGANIZATION OF KNOWLEDGE SO THAT ALTERNATIVE CONCEPTS CAN BE LOCATED, (2) THE IDENTIFICATION OF USER GROUPS AND THEIR INFORMATION NEEDS, (3) THE EXTENSIVENESS OF DIFFUSION OF INFORMATION AND THE DEGREE OF FENETRATION THROUGH VARIOUS DISSEMINATION TECHNIQUES WITHIN USER GROUFS, AND (4) FEEDBACK TECHNIQUES ON THE EFFECTIVENESS OF THE CONCEPTS DISSEMINATED. IT IS THE GOAL OF THE EDUCATIONAL RESOURCES INFORMATION CENTER TO BECOME A VIABLE AND EFFECTIVE INFORMATION SYSTEM FOR THE PROFESSIONAL FIELD OF EDUCATION. THE CLEARINGHOUSE ON VOCATIONAL AND TECHNICAL EDUCATION IS NOW COLLECTING, ABSTRACTING, INDEXING, AND DISSEMINATING THE RECORDED BODY OF KNOWLEDGE GENERATED BY THE VOCATIONAL PROFESSION AND ITS RELATED AREAS THROUGH TWO QUARTERLY PUBLICATIONS, ABSTRACTS OF INSTRUCTIONAL MATERIALS IN VOCATIONAL AND TECHNICAL EDUCATION (AIM) AND ABSTRACTS OF RESEARCH AND RELATED MATERIALS IN VOCATIONAL AND TECHNICAL EDUCATION (ARM), AND THROUGH RESEARCH IN EDUCATION (RIE) WHICH ALSO IDENTIFIES MATERIALS IN OTHER DISCIPLINES. THE RESEARCH COORDINATING UNITS (RCU) ARE THE LOGICAL DISSEMINATION NETWORK AGENTS WITHIN THE STATES. THE CLEARINGHOUSE ON VOCATIONAL AND TECHNICAL EDUCATION AND A GROUP OF RCU DIRECTORS ARE TO DRAFT GUIDELINES FOR STATE INFORMATION SERVICES AS A FRELIMINARY TO MEETING WITH ALL RCU DIRECTORS TO WORK OUT OPERATIONAL FROBLEMS OF THE INFORMATION SYSTEM. THE FROPOSED GUIDELINES SHOULD BE FLEXIBLE AND OFEN-ENDED SO THAT EACH STATE CAN DECIDE WHICH ASFECTS ARE DESIRABLE AND WORKABLE FOR THAT STATE. AVAILABILITY INFORMATION FOR AIM AND ARM MICROFICHE SETS IS INCLUDED. THIS SFEECH WAS DELIVERED AT THE NATIONAL CONFERENCE ON THE DIFFUSION OF EDUCATIONAL IDEAS (MICHIGAN STATE UNIVERSITY, MARCH 26-28, 1968). (MM)

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Information Systems; A Vehicle for Diffusion of Educational Ideas.

by

Celianna I. Wilson

The ERIC Clearinghouse on Vocational and Technical Education

The Center for Research and Leadership Development in Vocational and Technical Education

The Ohio State University

Paper presented at the National Conference on the Diffusion of Educational Ideas, East Lansing, Michigan, March 26-28, 1968, sponsored by The Research Coordinating Unit of the Vocational Education Division of the Michigan Department of Education in cooperation with the United States Office of Education and the Department of Communication and Continuing Education Service, Michigan State University.

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#### Information Systems;

A Vehicle for Diffusion of Educational Ideas

In order to comment on information systems as a vehicle for diffusion of educational ideas, perhaps it would be appropriate to review the important elements of diffusion.

1. First, there is an idea or concept.

2. The idea is communicated from one individual to anothe .

3. This activity occurs in a social system.

4. It occurs over time.

5. The concept is adopted, adapted, or rejected.

The theoretical or conceptual framework of diffusion is viable and provides guidance but there must be a deliberate mechanism to implement this framework. In short, an effective and pervasive information system is required. However, to date there has been very little success in building effective information systems. What are some of the reasons for this state of affairs? I believe that there are factors which have significant bearing upon the diffusion of ideas which have not received adequate attention. These are factors which involve:

- 1. The organization of knowledge so that alternative concepts can be located.
- 2. The identification of user groups of information and their information needs.
- 3. The extensiveness of diffusion of information within these user groups and the degree of penetration through various dissemination techniques. These may be recorded and/or verbal techniques.
  e.g. Specialized packages of information for pre-identified needs

of a specific user group could be produced which would have significant impact upon this group.

4. Fee? ack techniques on the effectiveness of the concepts disseminated.

I submit that a dynamic and responsive information system should be able to deal effectively with these factors and thereby become an effective vehicle for the diffusion of educational ideas. Such a system must first gather together a body of knowledge which can be used to locate a number of ideas; thereby providing a choice of concepts. There must be easy access to this knowledge without a lot of roadblocks. Within the body of knowledge there must be access to specific ideas. With the proliferation of ideas, evaluation and synthesis of these concepts by recognized authorities must be provided.

An effective information system must be concerned with methods of dissemination of this body of knowledge to different user groups. More efforts must be expended in identification of user groups and their information needs. The logical next step is to determine whether information that has been generated and collected meets these needs. Does the information need to be re-organized, or possibly re-stated to meet the needs of the user? Perhaps the information needed by a user group has never been generated and efforts should be directed towards stimulating qualified persons to generate such information.

Within user groups, there must be concern for the extensiveness and depth of penetration of dissemination of information from individual to individual. This requires the use of formal and informal methods of

dissemination which directly relate to the diffusion and adoption process. It requires organization of compatible information networks at local, state, national and international levels with switching devices <u>between</u> these levels and <u>within</u> these levels. These networks must have built-in allowances for flexibility. This must relate to:

- 1. language corpatibility and search strategies
- 2. hardware compatibility

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3. delineation of services and the division of labor

Next, a dynamic information system must evolve feedback techniques on the effectiveness and usefulness of the information and ideas in attaining the desired objectives of a user group and the individuals within those groups.

It is the goal of ERIC to become this kind of viable and effective information system for the professional field of education - first es a national system and then as part of an international network. Plans are being laid now for activities in the international arena.

How does a segment of the field of education such as vocational and technical education fit into this picture? The Clearinghouse on Vocational and Technical Education has initiated the basic steps of collecting the recorded body of knowledge generated by the vocational profession and its related areas. This knowledge is being abstracted, indexed and disseminated through two quarterly publications, <u>Abstracts of Instructional</u> <u>Materials in Vocational and Technical Education</u> (AIM) and <u>Abstracts of</u> <u>Research and Related Materials in Vocational and Technical Education</u> (ARM). With the assistance of advisory committees these publications have been

specifically designed as the basic information tools for the vocational profession. In addition there are other important publications such as <u>Research in Education</u> which identify significant materials in other disciplines. The time of many groups and many persons will be saved by having access to this information.

The Vocational Clearinghouse staff is working hard on the one thousand and one details that are involved in the complex problems inherent in gathering recorded knowledge, organizing it and making it available. For example, a number of suggestions were received requesting a back-up of microfiche for AIM and ARM. A back-up system has been negotiated through Central ERIC with the ERIC Document Reproduction Service (EDRS) and microfiche sets for AIM and ARM will be available by an ED number. A letter explaining this is being mailed to you and the state directors this week. A copy of this letter is attached as Appendix I of this report for information purposes. If you have questions after reading this information, I shall be glad to answer them. We know it would save time and money if a subscription system could be established for these microfiche packages. We anticipate that a price reduction might be negotiated if we could guarantee EDRS a basic number of subscriptions. Hence we are asking for an indication of interest from you in this regard. This example shows how quickly one can get involved in the multitudinous details of an information system.

To get back to the big picture, we know it is equally important to work on dissemination activities and feedback techniques. It is self evident that an information system that has the potential of serving thousands of professional vocational educators as well as many other

interested groups requires a viable dissemination network. The Research Coordinating Units are the logical agents within the states who can become one of the most important links of the entire system. Already the Clearinghouse on Vocational and Technical Education is beginning to refer users to the Research Coordinating Units. However, we know that considerable effort must be expended to effect a compatible but flexible information system. In order to do this, the Clearinghouse on Vocational and Technical Education has invited an Ad Hoc group of RCU directors to meet in Columbus at least twice later in the spring to draft some guidelines for state information services. The states involved are

- 1. California
- 2. Kansas
- 3. New Jersey
- 4. Oregon
- 5. North Carolina
- 6. Wisconsin

The type of activities to be covered by the Committee are

- 1. Identification of user groups and services to them
- 2. Synthesis and information analysis activities
- 3. Indexing

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- 4. Search techniques
- 5. Feedback techniques
- 6. Consumer education

This is being done looking towards meeting with RCU directors for the purpose of working out operational problems of the information system. We know there are other states who are actively working on procedures and we solicit their assistance by contacting Dr. Robert Taylor, Director of the Center for Vocational and Technical Education, or myself

in respect to using their materials. The resulting guides evolved by the Ad Hoc Committee should be flexible and open-ended with the recognition that each state will have to decide which aspects are desirable and workable for that state.

Our goal is to provide an information system that will be <u>effective</u> and we invite your suggestions and assistance. We are confident that through the cooperative relationship which is being established with the Research Coordinating Units we have the beginnings of a viable system which will contribute to and extend the diffusion and dissemination process.

 $\mathcal{F}_{or}$  research and leadership development in

Vocational and Technical Education

THE OHIO STATE UNIVERSITY 980 KINNEAR ROAD COLUMBUS, OHIO 43212 March 26, 1968

To: State Directors of Vocational and Technical Education RCU Directors

Dear Colleague:

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Che Center

Efforts are being made by Central ERIC (USOE) to resolve the delays in issuing <u>Research in Education</u> and the microfiche which back up this publication.

The microfiche sets of titles for the fall issue of <u>Abstracts</u> of <u>Instructional Materials</u> in <u>Vocational and Technical Education</u> (AIM) and fall issue of <u>Abstracts of Research and Related Materials</u> in <u>Vocational and Technical Education</u> (ARM) have been completed and are now available from the <u>ERIC</u> Document Reproduction Service (EDRS). (As soon as the microfiche for Winter AIM and ARM are available, the ED numbers will be sent to you.) The ED numbers and price for ordering are:

ED Number	Price	Number of Individua Documents Filmed	l <u>Title</u>
ED 013 339	\$19 <b>.</b> 50	74	Microfiche Collection of Docu- ments Reported in Abstracts of Instructional Materials in Vo- cational and Technical Educa- tion, Fall 1967.
ED 013 338	\$22 <b>.7</b> 5	99	Microfiche Collection of Docu- ments Reported in Abstracts of Research and Related Materials in Vocational and Technical Education, Fall 1967.

There may be a discrepancy between the prices shown in the February issue of <u>Research in Education</u> for these collections and the price listed in this letter. It is our understanding that the price we are sending you is the correct amount.

Additional ordering information is: EDRS The National Cash Register Company 4936 Fairmont Avenue Bethesda, Maryland 20014 Please add applicable state sales taxes or submit tax exemption certificate.

IN COOPERATION WITH THE DIVISION OF ADULT AND VOCATIONAL RESEARCH, UNITED STATES OFFICE OF EDUCATION

State Directors of Vocational and Technical Education RCU Directors Page 2 March 26, 1968

Enclosed is a list of the VT numbers in each publication which are included in these sets. The specific titles can be checked in the Document Number Index of AIM and ARM.

The documents have been filmed in sequential order by VT number. Fach new title starts in the next frame following the last filmed page of a previous title. An illustration is enclosed showing how this is effected.

Our Clearinghouse is working with Central ERIC and EDRS on the possibility of establishing subscriptions to the microfiche sets for AIM and/or ARM so that these sets can be automatically mailed to the subscribing agency. It is believed that if there are a sufficient number of subscriptions, a reduction in price could be affected. We realize that a few groups will want to subscribe to all fiche from all clearinghouses. If this is done, the sets for AIM and ARM will automatically be included. However, it is anticipated that many vocational agencies will want only the sets for AIM and ARM which include some titles not announced in RIE from the Vocational and Technical Education Clearinghouse. Titles abstracted by other clearinghouses could be ordered separately as they are identified in <u>Research in Education</u>.

It would be helpful if you would indicate your interest in subscribing to AIM and ARM sets of microfiche on the enclosed form so we may have some data to use in discussing a subscription program with Central ERIC and EDRS.

Sincerely,

Robert E. Taylor Anglos Director

RET:mth

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Enclosures

cc: H. Marron L. Burchinal L. Braaten

Vocational Technical (VT) Number Index to Microfiche Collection of Documents Reported in AIM, Fall 1967

VT_Number	ED Number <sup>1</sup>	VT Number	ED Number <sup>1</sup>
VT 000 111 VT 000 114		VT 002 176 VT 002 177 VT 002 178	ED ED 011 553
VT 000 115 VT 000 116 VT 000 350		VI 002 179 VI 002 179 VI 002 180	ED 011 554 ED 011 555
VT 000 356 VT 000 364 VT 000 488	ED ED 0.2 761	VT 002 223 VT 002 224 VT 002 227	ED 011 556 ED 011 557 ED 011 558
VI 000 489 VI 000 490	ED 012 762 ED 012 763	VT 002 251 VT 002 252	
VT 000 491 VT 000 492 VT 000 493	ED 012 764 ED 012 765 ED 012 766	VT 002 254 VT 002 257 VT 002 258	ED ED
VI 000 495 VI 000 494 VI 000 495	ED 012 767 ED 012 768 ED 012 768	VT 002 259 VT 002 260	ED ED
VT 000 496 VT 000 497 VT 000 498	ED 012 769 ED 012 770 ED 012 771	VT 002 262 VT 002 263 VT 002 409	ED ED 011 561 ED
VI 000 490 VI 000 499 VI 000 500	ED 012 772 ED 012 773	VT 002 411 VT 002 484	ED ED 012 336
VT 000 501 VT 000 502	ED 012 774 ED 012 775 ED 012 775	VT 002 780 VT 002 781 VT 002 782	ED ED
VT 000 503 VT 000 504 VT 000 507	ED 012 776 ED 012 777 ED 012 778	VT 002 786 VT 002 792	ED
VT 000 611 VT 000 990	ED	VT 002 857 VT 002 924 VT 002 934	ED ED
VT 001 132 VT 001 140 VT 001 277	ED ED	VI 002 934 VI 002 995 VI 003 003	
VT 002 011 VT 002 032		VT 003 014 VT 003 017 VT 003 022	ED
VT 002 040 VT 002 095 VT 002 158		VT 003 022 VT 003 024 VT 003 124	ED ED
VT 002 174 VT 002 175	ED 011 551 ED 011 552	VT 003 129 VT 003 132	

<sup>1</sup>Also available from EDRS as individual documents.

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Vocational Technical (VT) Number Index to Microfiche Collection of Documents Reported in ARM, Fall 1967

VT Number	o F mberl	VT Number	ED Numberl
	ED 010 785	VT 000 082	ED 011 919
000 000 TV		VT 000 086	
VT 000 001	ED 010 786	VT 000 087	
VT 000 002		VT 000 088	ED 011 920
VT 000 004		VT 000 093	ED 012 307
VT 000 007	ED 010 787		
VT 000 008		VT 000 096	ED 012 749
<b>VT 000</b> 010	ED 010 788	<b>VT 000 100</b>	ED 010 794
VT 000 011	ED 010 789	VT 000 119	
VT 000 014		VT 000 342	ED 012 751
VT 000 015	ED 011 282	VT 000 343	
		<b>VT 00</b> J 344	
<b>VT 000</b> 016		VT 000 345	
VT 000 019		VT 000 347	
VT 000 020		VI 000 354	ED 012 752
VT 000 021	ED 011 283	<b>VI</b> 000 355	ED 012 753
VT 000 023	ED 010 790	¥1 000 377	
		<b>VT 000 357</b>	
<b>VT 000 024</b>		<b>VT 000 395</b>	ED 011 921
VT 000 025	ED 011 284	VT 000 396	ED 011 922
VT 000 026	ED 010 791	<b>VT 000 397</b>	•
VT 000 027	ED 011 912	VT 000 399	
820 000 TV	ED 011 913		
		VT 000 402	ED 012 310
VT 000 030	ED 011 914	VT 000 403	ED 011 923
VT 000 033	ED 011 915	<b>VT 000 406</b>	ED 011 924
<b>VT 000 034</b>		VT 000 407	ED 011 925
VT 000 035	ED 011 910	VT 000 408	
VT COO 036			
VT 000 037	ED 012 299	VT 000 410	ED 011 926
VT 000 038		VT 000 413	ED 012 754
VT 000 039	ED 012 300	VT 000 417	
VI 000 041	ED 012 301	VT 000 418	ED 012 311
VI 000 041 VI 000 044	ED 012 302	<b>VT 000 419</b>	ED 011 927
		<b>VT 000</b> 421	ED 012 312
VT 000 045	ED 012 744	VI 000 421 VI 000 434	
<b>VT</b> 000 054	ED 012 747	VI 000 434 VI 000 435	
VT 000 059			ED 012 756
VT 000 063	ED 010 792	VT 000 436	
VT 000 065		<b>VT</b> 000 448	
	ED 010 793	<b>VT 000 453</b>	ED 012 313
VT 000 067		<b>VT 000 460</b>	
VT 000 068		VT 000 462	
VT 000 075	ED OIL ENG	VT 000 464	ED 012 757
VT 000 077	ED 011 546	VT 000 505	ED 011 030
<b>VT 000 078</b>	ED 011 918		_

VT Number	ED Number <sup>1</sup>	VT Number	ED Number 1		
VT 000 523 VT 000 554 VT 000 558 VT 000 606 VT 000 617	ED 011 285 ED 011 286 ED 011 547	VT 000 859 VT 000 907 VT 000 911 VT 001 127 VT 001 144	ED 011 288 ED 011 289		
VT 000 646 VT 000 647 VT 000 648 VT 000 649 VT 000 796	ED 011 032 ED 011 033 ED 011 034 ED 011 035 ED 011 287	VT 001 260 VT 001 267 VT 001 270 VT 001 429	ED 011 291 ED 011 038 ED 011 928		

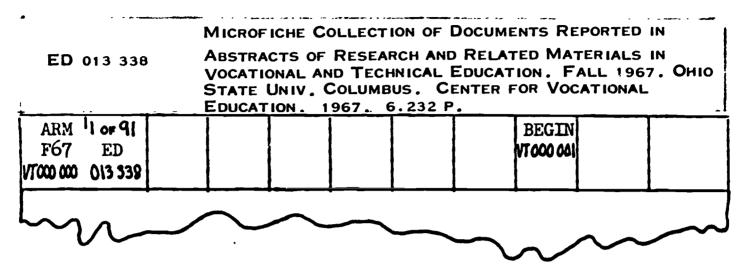


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<sup>&</sup>lt;sup>1</sup>Also available from EDRS as individual documents.

#### FICHE 1



FICHE 2

ARM 2 91 F67 ED VT000 001 013 338	BEGIN VT CCO CO2		
		BEGIN NT 000 004	
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FICHE 3

ARM <b>3 •= 91</b> F67 ED VTCODOCH 013 338					
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To: State Directors of Vocational and Technical Education RCU Directors

Return by or before April 5.1968

1. We already \_\_\_\_\_\_ purchase or subscribe to all microfiche are planning to \_\_\_\_\_\_\_ on microfiche from all clearinghouses.

2. We would like to subscribe to the microfiche sets for AIM \_\_\_\_.

- 3. We would like to subscribe to the microfiche sets for ARM \_\_\_\_.
- 4. Names of other organizations within the state who might be interested in subscriptions to the microfiche sets of AIM and/or ARM. Please list name and address.

	AIM	ARM
<b>a.</b>		
b.		
с.		

Submitted by:

(name)

