

The diffuser who consciously pays attention to these factors will derive a better strategy than the diffuser who fashions his strategy at random.

THE finest research, the most innovative solutions to practical problems, the best packages of materials, can have no effect on practice if they are not diffused to the level of the practitioner. It is obvious that one cannot hope for any considerable improvement in American education unless one also pays a great deal of attention to the process of diffusion.

Diffusion has been defined in many ways. Rogers' classification of the five stages of diffusion has become classic:

1. *Awareness*: The individual learns of the existence of the innovation.

2. *Interest*: The individual seeks more information and considers the merits of the innovation.

3. *Evaluation*: The individual makes a mental application of the innovation and weighs its merit for his particular situation.

4. *Trial*: The individual applies the innovation on a small scale.

5. *Adoption*: The individual accepts the innovation for continued use on the basis of a previous trial.¹

Another frequently cited definition is that of Katz *et al.* who define diffusion as ". . . the (1) *acceptance*, (2) *over time*, (3) of some specific *item*—an idea or practice, (4) by individuals, groups, or other adopting *units*, linked (5) to specific *channels* of communica-

¹North Central Rural Sociology Subcommittee on the Diffusion of Farm Practices. *How Farm People Accept New Ideas*. Iowa Agricultural Extension Service Special Report 15. Ames: The Service, 1955.

DIFFUSION OF INNOVATIONS

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tion, (6) to a *social structure*, and (7) to a given system of values, or *culture*."²

It is clear that the key element in both these definitions is, to use Katz's term, the *adopting unit*. Both definitions also stress *acceptance*. Thus the end result of diffusion is the *acceptance by an adopting unit*, often an individual, of an "innovation."³ The purpose

²Elihu Katz, Martin L. Levin, and Herbert Hamilton. "Traditions of Research on the Diffusion of Innovations." *American Sociological Review* 27:240; April 1962.

³We shall use the term *innovation* in the sense suggested by Bhola, "An innovation is a concept . . . , an attitude . . . , a tool with accompanying skills . . . , or two or more of these together introduced to an individual, group, institution, or culture that had not functionally incorporated it before." Harbans S. Bhola. "The Configurational Theory of Innovation Diffusion." School of Education, The Ohio State University, 1965. (Mimeographed.)

of diffusion activities is to gain such acceptance.

Diffusion activity is, of course, carried out by a diffusion agent, whom we shall refer to here simply as a *diffuser*. He may or may not have been involved in the development of the innovation being diffused. He may simply be a huckster who is out to "sell" the innovation wherever he can, for personal gain. We shall limit our discussion, however, to the case in which the diffuser sees himself as engaged in opening viable professional alternatives to practitioners who are confronted with problems. The innovation being diffused is conceivably one alternative way of handling the problem. The diffuser is assumed to operate within the limits of normal professional morality.

Strategy for Diffusion

What the diffuser needs is a *strategy for diffusion*, i.e., some action plan which will result in the innovation involved coming to the attention of those practitioners who ought to know about it. But such a strategy is not easy to devise, because the diffuser, if he is to have a successful strategy, must pay attention to at least five sets of factors:

1. *Diffusion techniques*. There are essentially six modes for the diffuser to use: (a) he can *tell* (newsletters, papers, conference, conversations, etc.); (b) he can *show* (participant observation, demonstration, films, etc.); (c) he can *help* (consultation, service, etc. rendered on the adopter's terms); (d) he can *involve* (include or coopt the adopter); (e) he can *train* (familiarize with the innovation through courses, workshops, T-sessions, etc.); and (f) he can *intervene* (i.e., involve himself

in affairs of the adopter on his [the diffuser's] terms). The diffuser will have to select from among these six that technique or combination of techniques best suited to his purpose.

2. *Assumptions concerning the nature of the adopter*. There are at least seven assumptions which the diffuser can make about the nature of the adopter whom he seeks to cause to consider an innovation: The adopter may be viewed (a) as a *rational* entity who can be *convinced* on the basis of hard data and logical argument of the utility of the proposed innovation; (b) as an *untrained* entity who can be *taught* to perform in relation to the innovation; (c) as a *psychological* entity who can be *persuaded*; (d) as an *economic* entity who can be *compensated* or *deprived*; (e) as a *political* entity who can be *influenced*; (f) as a member of a *bureaucratic system* who can be *compelled*; or (g) as a *member of a profession* who can be *professionally obligated*.

A *rational* approach might thus, for example, lean heavily on evaluation data; a *didactic* approach on workshops and in-service training experiences (NDEA Institutes); A *psychological* approach on self-actualization devices (COPEd); an *economic* approach on financial rewards or punishments (NDEA language laboratory equipment or withdrawal of federal funds from segregated schools); a *political* approach on influence-peddling; an *authority* approach on mandates (elementary language requirement in California); and a *value* approach on moral commitments (what's good for the "kids"). The diffuser will have to decide which of these approaches or com-

binations of approaches best fits his potential adopter.

3. *Assumptions concerning the end state in which one wishes to leave the adopter.* Very little attention is typically paid to the end state in which the diffuser wishes to leave his subject. This situation may arise, of course, because the diffuser is acting as a mere huckster; hucksterism may "sell" an innovation but it may leave the adopter with very little residual propensity to adopt again. But even with well-intentioned diffusers this difficulty may arise.

What is it that the practitioner should be able to do, to think, or to feel as a result of having been exposed to a diffusion strategy. Is he to be better trained? More skillful? More knowledgeable? More open? It seems particularly ironic that this situation of carelessness about end states should be found in the field of education, which is so generally characterized by concern about behavioral outcomes and objectives. If we applied a little of our usual logic about specifying expected goals, this difficulty might be largely overcome.

4. *Assumptions about the nature of the agency or mechanism carrying out the diffusion activity.* No sensible diffusion strategy can be evolved without careful attention to the matter of who is to carry it out. For not all strategies are within the capabilities of all agents or mechanisms, or congenial to their philosophic or political position. Constraints exist which mandate certain actions for certain agents and which prohibit other actions to them.

So, for example, a regional educational laboratory, acting as a diffusion

agent, is hardly in a position to use an intervention technique, since it lacks the necessary authority to do so; but telling, showing, or involving come "naturally" to it. A state department of education may well intervene (and indeed, may be legally mandated to do so in certain instances) but probably would be very suspect if it attempted to use involvement.

An individual teacher can tell and show but probably would be thought ridiculous if he set up a training experience for his fellows. A university could carry out this latter function with impunity, but it must defend itself against a charge of rendering "mere" service when it attempts to use a helping technique. Since the final implementation of a strategy depends upon the agent, the strategy must be one appropriate to the agent's circumstances.

5. *Assumptions concerning the substance of the invention.* Obviously not all inventions are alike; they pose different problems of adoption, and this fact must be taken into account in developing an appropriate diffusion strategy. One way to view this problem is in terms of the amount of change mandated by the invention.

Thus Chin⁴ characterizes innovations as involving mere *substitution* (e.g., one textbook for another), *alteration* (a minor change such as lengthening the school day by 15 minutes), *perturbation or variation* (e.g., moving a class into a temporary mobile classroom to

⁴Robert Chin. "Models and Ideas About Changing." Paper presented at the Symposium on Identifying Techniques and Principles for Gaining Acceptance of Research Results of Use of Newer Media in Education. W. C. Meierhenry, Symposium Director. Lincoln: University of Nebraska, 1963.

obviate overcrowding), *restructuring* (e.g., adopting team teaching), and *value orientation change* (e.g., replacing the teacher with a system of computer-assisted instruction). Rogers talks about the characteristics of inventions that make them more or less acceptable, including *relative advantage* (intrinsic superiority), *compatibility* (consistency with existing values and experience), *complexity* (difficulty in use), *divisibility* (degree to which the innovation can be divided into parts and/or tried on a limited basis), and *communicability* (diffusibility).⁵

Whether these or other ways of classifying the substance of innovations are most useful is less important at this moment than to be sure that any diffusion strategy which might be devised takes account of substance in *some* fashion.

We see then that the development of a diffusion strategy is no small chore, involving a number of separate considerations. Some of the involved factors are interrelated so that, for example, when the nature of the diffusion agency is defined, some techniques are more "natural" or "suitable" than are others, as we have already tried to illustrate. On the other hand, some of the dimensions are more or less independent. So, for instance, it is likely that any of the techniques (with few exceptions) could be coupled with any of the assumptions one wished to make about the nature of the adopter.

Consider the differences in use of

⁵ Everett M. Rogers. *Diffusion of Innovations*. Glencoe, Illinois: The Free Press, 1962. p. 124.

techniques that might exist between two strategies which made, respectively, a rational or a psychological assumption about the nature of the adopter. The psychological approach, as opposed to the rational, would use "telling" less to inform about hard data than to share experience; "showing" less to illustrate solutions to problems than to demonstrate the enthusiasm of the participants; "training" less for developing skills than for sensitizing in areas of human relations, etc. Thus we see that the strategy requires an appropriate *blending* of the various factors to produce an effect which is directional, integrated, and effective.

The theory propounded here, if it can properly be called that, is not easy to apply. What is lacking are operational determiners of the four classes of assumptions outlined above. How can one determine which assumption about the nature of the adopter it would be wisest to make? How can one determine appropriate end states? Where are the instruments that will permit the characterization of the nature of the diffusion agent, or of the substance of the invention?

And finally, given that one could determine all of these factors, how is one to tell which techniques are appropriate to the particular configuration of other factors so defined? These questions have no answers. Yet there can be little doubt that the diffuser who consciously pays attention to these factors, in however "arty" a way he may do it, will derive a better strategy than will the diffuser who fashions his strategy at random. ☞

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