The Public Transportation Network

DAVID J. CYRA

ABSTRACT

The Public Transportation Network (PTN) is a federally funded national program designed to help local transportation units find better ways to manage and operate their public services. Begun as a pilot project in 1980 by the Office of Technical Assistance of UMTA, PTN emphasizes peer-to-peer communication to identify and promote exemplary practices. PTN is composed of three key parts: (a) developer demonstrators (DDs)--local transit people who have successfully pioneered an innovative practice and are willing to share their experience, (b) requestors--local transportation units that are or could be interested in adopting innovations, and (c) regional facilitators--agents who match the DDs with appropriate local units, and help them to get together. One of the challenges of setting up a new network like PTN is deciding on the best method and timetable for evaluating it. Certainly the number of actual innovations put into practice is a reasonable standard, but it cannot be applied too soon. A halftime facilitator faced with a six state territory needs time before his efforts can be perceived.

The Public Transportation Network (PTN) is a federally funded national program designed to help local transportation units find better ways to manage and operate their public services. What makes PTN unique is its emphasis on the value of peer-to-peer, face-to-face contacts to promote the widespread diffusion of transit innovations. PTN operates under UMTA's Office of Service and Management Demonstrations (SMD), which has long been involved with designing, describing, and replicating innovative projects.

The idea for a PTN model was borrowed from the Department of Education's National Diffusion Network (NDN). This program, begun in the early 1970s, encourages the spread of exemplary educational practices to schools nationwide. NDN was one of the first federal programs to recognize, by its very structure, that the traditional government approach to encouraging innovation by sending out printed materials was inadequate at best. Instead, NDN emphasizes the value of peers teaching each other.

PTN is composed of three key groups:

1. Developer demonstrators (DDs)--local transit people who have successfully pioneered an innovative practice and are willing to share their experience.
2. Requestors--local transportation units that are or could be interested in adopting innovations.
3. Regional facilitators--agents who match the DDs with appropriate local units, and help them to get together.

Because there will not always be an approved DD to meet every local need, PTN also includes a group of resource people who are professionals with specialized knowledge of the best available practices in public transportation. They can be consultants, public agency employees, university researchers, and so on. Resource people are available for telephone consulting, brief site visits, and workshop or conference participation.

If the local problem is best handled by some other technical assistance program, the facilitator makes a referral to that program. For example, most matters relating to fare policies are referred to the Resource Center on Transit Pricing. In other cases, clearly written, how-to materials for easily implemented projects are provided by the facilitator.

The national office of PTN ties all the network elements together by (a) providing support to the regional facilitators and DDs, (b) acting as a facilitator to areas of the country not yet served by a regional person, and (c) providing other technical assistance resources to the facilitators. For example, a document library is being established and indexed, providing each facilitator with at least two copies of each report to loan out or duplicate for local users. The national office also maintains the bank of resource people.

Ideally PTN would be driven by local requestors who recognize a problem and contact a regional facilitator for help. The ideal problem-solution cycle is shown in Figure 1. Of course, the ideal rarely exists. In practice, especially at first when awareness of PTN is low, the regional facilitators will probably have to take a very active role in problem identification and needs assessment.

PTN also has a Project Guidance Committee that ensures the user orientation essential to its success. The committee members represent a cross section of transit agencies and other transportation organizations. The committee serves as

1. An information source for identifying current problems,
2. A sounding board for evaluating proposed project services,
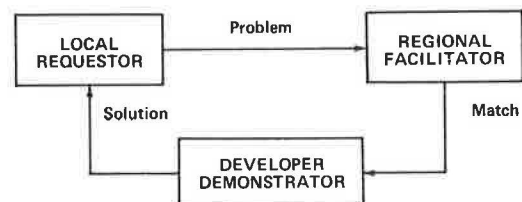3. A source for finding new DDs, and

FIGURE 1 Ideal problem-solution cycle for PTN.

Office of Statewide Transportation Programs, University of Wisconsin--Extension, Milwaukee, Wis. 53201.

4. An ally within the transit industry to endorse the PTN project and encourage others to both support and use it.

There is also a Dissemination Review Panel (DRP) to more or less validate the innovations of potential DDs. The DRP reviews the claims and evidence of effectiveness submitted by local innovators. The panel has 12 to 15 members who represent the various UMTA Technical Assistance and Regional Offices. Eligibility criteria (1) for innovations are as follows:

1. The innovation must be in use and have a good communicator on site,
2. The innovation must be small (adoptable within a year and requiring few institutional changes),
3. The innovation must be of interest to a number of other communities and be a good example of its kind,
4. The innovation must exhibit positive and significant impacts,
5. The innovation must have costs and benefits that can be objectively measured by available information, and
6. The innovation cannot be commercially marketed by the DD.

It should be pointed out that for PTN an innovation can be any new technique, procedure, practice, or technology that increases the benefits generated by public transportation or that reduces the costs of providing that transportation. In some cases the innovation may be an entirely new idea, but in others, a standard procedure may be applied in a novel way or to different conditions.

Whatever the nature, the innovation has to be championed or endorsed by an agent whom potential users respect and trust. In fact, recent studies show that the character or personality of the transfer agent plays a major role in the spread of innovation.

Throughout federal and state government today, there is increasing awareness that local adoption of new ideas depends on personal contact and peer communication. There is also new appreciation of the fact that specialists are needed to deliver these new ideas to the right people. However, there has been no emphasis on the specific personal skills and qualities of the transfer agent, who must be chosen and trained very carefully. No matter how many Rural Technical Assistance Program (RTAP) center directors are designated, or how many regional facilitators are named, the networks will not survive unless the right person is chosen for the job.

What are these personal traits that all transfer agents should share? H.J. Peake provides an outline (2):

The required attributes of transfer agent candidates can be reduced to two critical ingredients: human relations ability, intellectual competence. And the human relations ability carries more weight than the intellectual factor. After all, even the finest technological brilliance will never be brought to bear on public sector problems unless there is an appropriate agent-client relationship based on mutual trust. . . . But a personally well-equipped agent, going into a user-pull situation, taking with him a problem-solving orientation, backed up by a supportive and nearby technology-based activity, not fettered by awkward administrative arrangement, report requirements, and the like--such an agent will almost certainly come to know the exciting sense of accom-

plishment derived from technology beneficially applied.

Peake spends a good deal of time on the selection process for transfer agents. The important point is that special consideration should be given to selecting people with good communications and human relations skills.

The ideal transfer specialist is described in the Technology Transfer Primer (3) as (a) outgoing and cooperative, (b) persuasive yet broadminded, (c) articulate but a good listener, (d) sensitive to local political conflicts, (e) energetic yet patient, (f) curious but not undisciplined, and (g) intelligent but not intellectual.

The attributes of technology transfer specialists are detailed under five headings (3).

(1) ENTHUSIASM

Unending enthusiasm is one of the premier qualities of a successful change agent. Local decision makers are often caught in a web of bureaucracy that breeds apathy. Potential users of technology need to be tackled with imagination, patience and persistence. The source of this enthusiasm often arises from a genuine urge to serve the community.

(2) SENSITIVITY

Technology transfer specialists must be ALL THINGS TO ALL PEOPLE. They must be able to deal effectively with a wide range of people including local officials, federal bureaucrats, researchers, planners, skilled and unskilled laborers, etc. Each of these groups responds to a different style and a good transfer specialist must be sensitive to the style appropriate to each group.

(3) DISCIPLINE

Technology transfer activities tend to be extremely varied and diffuse. Change agents need to be able to set priorities and organize information into a form that is most useful to potential users.

(4) CLARITY

Transfer specialists must be able to EXPLAIN TECHNICAL INNOVATIONS SIMPLY AND CLEARLY. In other words, they must be able to translate technical materials out of jargon and into a language users can understand.

(5) UNSELFISHNESS

Transfer agents need to be non-authoritarians who don't resent authority in others. They need to put user needs above personal goals. They also need to be sensitive to vested political interests without being subservient to them. They must be willing and eager to relinquish credit for innovation when it is politic to do so.

The definition of a helping relationship in one study seems applicable to defining the role of regional facilitator. A helping relationship fosters growth and is based on trust. In the counselor-client relationship described, the quality of this helping relationship proved far more important in clinical treatment than the particular program or approach used. It was the trust, not the treatment, that mattered.

A great deal of trust is also necessary for successful technology transfer. Transfer agents, whether PTN regional facilitators or RTAP staff, must establish rapport with client groups by being sensitive to their problems, pressures, and prejudices, and by listening to local people. Careful listening is crucial to gaining a complete view of the local situation and to avoiding costly mistakes. Any time a transfer agent makes an inappropriate suggestion or remark, a measure of credibility is lost. Transfer agents should see themselves as involved in a helping relationship that is conducive to the development of a local unit.

PTN IN PRACTICE

Currently there are 15 approved DDs available to visit local sites. Unfortunately there are only two regional facilitators so far nationally. After initially agreeing to a three-state region, the author now has all of UMTA's Region 5 (six states).

The general topic areas of the DDs cover a wide range: human resource management, service improvements, service evaluation, finance, public-private cooperation, and marketing. One topic area includes a videotaped driver selection test.

The financial arrangements for DD visits are at present very flexible. To a certain extent payment for a site visit is left to the discretion of the facilitator. The usual practice is that PTN pays the travel expenses of DDs, and the lodging and per diem costs are paid by the local unit being served. However, the arrangements can vary. For instance, there is the possibility that geographically adjacent areas could share costs. It is also possible to bring together several DDs for a large "awareness" conference. NDN finds this very cost-effective: local people retain the benefits of one-to-one contact with peers, and the time and expense of the DDs are reduced.

However, those involved in PTN are aware of the need to use multiple kinds of communication when promoting innovation. For example, because of the size of the region covered, the author uses specially designed printed materials that describe both PTN and the demonstration projects. The national office of PTN provides the regional facilitators with distinctive folders. It also produces long (7- to 15-page) descriptions of DDs, as well as succinct one-page summaries. The folders contain a description of PTN, a list of the current DDs, short descriptions of each innovation, and the speciality areas of candidate demonstration projects.

In-depth descriptions are standardized for easy reading under headings such as Innovation Title, Developer, Funding, Time-Frame Development, Prior Conditions, Program Description, and Program Effectiveness and Conclusions.

GENERAL NOTES ON PTN

PTN is currently a very decentralized diffusion system with everyone in the network aiming for both vertical (bottom-up and top-down) and horizontal (peer-to-peer) information and technology transfer. Every effort should be made to keep PTN as decentralized as possible to give the facilitators flexibility in helping local units.

PTN should try to reach all levels of the transit industry. Initial awareness efforts must inform transit people of the existence of the network and generate confidence and interest. Printed materials should be as varied as possible, as well as clear, concise, and simple. Much of the early awareness will necessarily be the responsibility of the regional facilitators. They must use different kinds of awareness strategies such as mailings, telephone calls, meetings, and advertising in relevant newsletters to become as visible as possible.

PTN regional facilitators and developer demonstrators must make good use of local networks already in place to advertise themselves and their products. It is both possible and desirable for regional people to structure their own awareness-building conferences; however, they should also attend as many other local and regional meetings as possible. They must be in the field to lead the campaign.

Because there is much evidence that the personal skills of transfer agents play an important role in successful innovation, special care should be given to the selection and training of PTN personnel.

In addition to the trust between the various transfer agents and the local groups, there must also be trust among agents themselves. Therefore, efforts should be made to get regional facilitators together with the DDs on a periodic basis so that the facilitator becomes familiar enough with their communication styles to feel comfortable recommending them to local agencies.

The transfer agent should not become too rigid in implementing the innovations exactly according to the prototype. Each implementation will depend on the various circumstances, and local people should be allowed to work with the agent to tailor the innovation to their individual needs.

Finally, it is also important to regard every request as having potential for innovation, whether or not there is a specific PTN demonstration project that meets the need. Transfer agents should make full use of resource people, publications, indexes, and in fact, the whole labyrinth of networks available to help a requestor define and meet needs. The first step is to listen carefully. After all, the ideal is a technology-pull situation.

A PERSONAL VIEW OF PTN CHALLENGES

The author's expectations as a regional facilitator have changed regarding how much can be accomplished at various stages of the PTN project. One reason is that the service area has doubled from three to six states. It is not easy to keep names, faces, needs, legislation, meeting dates, and local organizations straight. In addition, requests for assistance seem to come in bunches rather than in any orderly one-a-day pattern. Response to the early needs assessment done by mail was disappointing, at least in terms of numbers. Ninety-eight questionnaires were sent and only 27 were returned. However, those returned were very positive in response to the idea of a network like PTN.

Effective time management is a challenge, but it is essential to the efficient performance of a facilitator. PTN consumes 41 percent of the author's time, but regular work as director of the Office of Statewide Transportation Programs (OSTP) for the University of Wisconsin--Extension involves many activities that directly complement PTN work. Similarly, the information networks used for PTN provide a much broader education base for program develop-

ment and transit outreach at OSTP. However, in order
to be accountable to PTN, careful records are kept
on time allocation. Such documentation provides an
excellent basis for performance evaluation.

Finally, there is the question of evaluating the
PTN program, at least in terms of using actual, im-
plemented innovations as a criterion. At this time
it is more appropriate to evaluate the activities
involved in laying the groundwork for later innova-
tion.

REFERENCES

1. The PTN Guidelines for Submitting Summary of In-
   novative Transportation Practices. The Urban In-
   stitute, Washington, D.C., 1983.
2. J.H. Peake. The Human Element in Technology
   Transfer. National Aeronautics and Space Admin-
   istration, Greenbelt, Md., 1978.
3. R.P. Schmitt et al. Technology Transfer Primer.
   Office of Statewide Transportation Programs,
   Milwaukee, Wis., 1984.

Technology Transfer: A View from the Receiving End

ELDO W. SCHORNHORST

ABSTRACT

The receiving end is where technology transfer is expected to produce results.
To make the technology work, the object of the transfer, the recipients, and
recipients' needs must be known. These items are addressed from the viewpoint
of an Iowa county highway engineer.

The receiving end of technology transfer is not
glamorous. At the local road department level, it is
where the technology is expected to work and where
technology comes face to face with the public.

DEFINITION OF TECHNOLOGY TRANSFER

No one has a clear, or even the same, understanding
of what technology transfer is or should be. More-
over, the question can be expanded to: What is being
transferred?

Transfer processes occur continuously as the in-
formation required to conduct life is given and re-
ceived. Technology transfer, the exchange of infor-
mation on subjects directly related to specific job
needs, is part of this daily process. Note the use
of "exchange," which indicates that the transfer of
information requires two-way communication.

Technology transfer is not new. The process in-
cludes conferences, short courses, seminars, or
other types of training sessions. At the local
county level in Iowa such well-structured technology
transfer sessions have been conducted for at least
70 years.

Technology transfer is often thought of as in-
volving highly developed research programs and for-
malized presentations, but this approach is not nec-
essarily required. Technology transfer also means

people talking to people about their specific needs
and exchanging information and ideas on problems.
Reading an article in a trade publication or an as-
sociation newsletter or reviving an old method are
part of technology transfer. Note that there will
not always be a new way of solving problems.

THE RECEIVERS

The receivers vary greatly. A low-volume road is yet
to be defined adequately, and the diversity of the
group working on low-volume roads also defies cate-
gorization. There are wide variations in responsi-
bilities, education, and ability. Responsibilities
range from highly organized counties with large
staffs, to small rural townships with two or three
staff members. Education levels vary from advanced
college degrees to eighth-grade educations. Add to
this diversity the common denominator of lack of
time for receiving information, and the problem of
information transfer is magnified.

The desire for information depends on the spe-
cific needs of the job. This, in turn, depends on
the responsibilities assigned to various jurisdic-
tions. Some counties have a full range of highway-
related duties on all roads, but others are limited
to certain classifications of roads and functions.
For example, if a county is not responsible for
bridges, the need for bridge-related technology
would be very low; however, there may be many prob-
lems with road-surfacing materials. On the other

Office of County Engineer, Shelby County, Box 66,
Harlan, Iowa, 51537.