The value of instructional television for universities and public school systems has often been swallowed up in the complexities of producing programs. Television can be better used in the classroom as an instructional resource, taking advantage of already produced programming that is available from sources such as the Public Broadcast Service. Schools should work closely with their local educational television stations (ETS) both to obtain access to these programs and so that a balanced variety of programming is broadcast by the ETS that will be useful to all the schools in a given area. When conflicts arise, schools can tape broadcast programs and make them available when they can be effectively used. This suggestion raises the question of copyright laws; the legality of nonprofit use of recorded materials is not clear, although there are guidelines available that suggest that a program may be taped for one-time use. A Piggyback unit, or a cart with a color television and a videocassette playback machine, is an effective means of presenting the program once it is taped. (SH)
LET'S PIGGYBACK AND FORGET COMPLEXITY

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Television has many useful applications in instruction, but unfortunately the complexities of the medium have tended to cause more frustration than instructional effectiveness. Television first emerged in education as a panacea to compensate for the shortage of qualified instructors and to provide quality instruction to large groups. Many universities and public school systems, with the help of the federal government, poured millions of dollars into television production studios and distribution facilities. The equipment was installed and instructors were expected to take full advantage of television's potential. What happened? The facilities were there, but educators were completely unaware of the tremendous complexities of television production. Professional production staffs were seldom employed and instructors were inadequately trained in the use of the television medium. The result, a preponderance of talking faces emerged in classrooms. Television was used primarily to distribute a lecture from one place to another. Students and instructors were dissatisfied, technical problems were numerous, and the entire process was fantastically expensive.

Today, most schools have written off their production studios and forgotten they ever existed. Should instructional television be forgotten also? No, now that television as a cure-all has quietly died, we can concentrate on using television as an instructional resource in the classroom. Instead of trying to produce everything from scratch, we should take advantage of what already exists. With the nation covered by educational television stations, and with the distribution network provided by the Public Broadcast Service (PBS), a tremendous volume of excellent programing is being broadcast. This excellent programing is being produced by the larger ETV stations and specialized production centers which have the financial resources and professional expertise required to produce quality instructional materials.
How can the schools take advantage of this rich source of instructional materials? First of all, schools should work closely with their local ETV station. Many programs are distributed to ETV stations by the PBS network while other instructional programs are available on a rental basis from one of several national video tape libraries. These rental video tapes are primarily in broadcast format and therefore must be shown through the facilities of an ETV station. Schools should coordinate their efforts in working with their local ETV station so that a balanced variety of programming is broadcast which will be useful to all the schools in a given area.

Even with this cooperative effort problems still exist. A station broadcasts a program at a specified time and must assume that individual classes are ready for the viewing. Programs are seldom broadcast when they can be efficiently integrated into classroom activities. The solution to this problem is to tape record programs as they are broadcast and then make them available for playback when they can be efficiently and conveniently utilized. By obtaining the necessary video recording equipment an operator can record, at an instructor's request, any program broadcast on either educational or commercial television. This off-the-air video taping is a simple and inexpensive method of bringing broadcast programs into the classroom, however, it does present problems in terms of copyright laws.

Since the copyright problem is such a prevailing issue it is worthwhile to examine its present status. The copyright laws basically state that no copyrighted materials may be copied and reused without the written permission of the original producer. The law is particularly important in those areas where sizable monetary gains are involved. However, since taping materials for in-school instructional use does not involve monetary gain, many educators believe that in-school use of copyrighted materials should be permitted. Unfortunately, (or fortunately, as the case may be) neither the Federal statute nor Judicial decisions are completely clear on the right to record and reuse materials. The whole area of nonprofit use of recorded materials is very nebulous and will take copyright revisions in order to clarify exactly what can and what cannot be recorded and reused for noncommercial purposes. We do have some favorable guidelines according to such sources as Siebert¹ and Gordon.² Siebert and Gordon indicate that it seems clear that a recording of copyrighted material can be made for delayed broadcast on a one-time basis. This means that any TV program may be locally recorded as it is broadcast and later played
back when it is convenient. Nothing appears to be specifically stated indicating whether or not a recorded program may be retained and reused after the initial delayed showing. Siebert states in his book entitled Copyrights, Clearances, and Rights of Teachers in the New Educational Media:

In summary, until the copyright statute is amended or until the courts make a clear-cut decision, it is submitted that educational not-for-profit programs may be recorded and that noncommercial re-use of these recordings and transcriptions is permissible. 3

Once a program has been recorded and we are free to use it, at least on a one-time basis, there must be an efficient method of showing that program in the classroom. The type of playback facility recommended specifically for this purpose is called a Piggyback Unit. A Piggyback Unit is simply a cart containing a color TV set and a video tape playback machine. After a tape is recorded, it can be placed on a Piggyback Unit and wheeled into the instructor's classroom when it is convenient for the instructor. The instructor now has complete control over the program presentation; he can start the program when he is ready, stop to answer questions, back up and even repeat sections. This system provides the instructor with the same control over a television program that he has over an audio tape or a 16mm film. If copyright and reuse problems are eliminated the program could be retained after the initial showing and used again for similar presentations, used as a resource, or used as make-up material for students who were absent during the initial viewing. The most important aspect of the Piggyback system is that the instructor can bring full color television programing into the classroom while still maintaining complete control over its presentation. By using Piggyback Units, two or three units may serve an entire school. Equipment is distributed only when requested. For large group viewing several units can be wheeled into one area and interconnected. Piggyback Units can be wheeled into and utilized in any instructional area in the school, all that is needed is an AC outlet. The traditional (and seldom used) room to room wiring, with TV sets in each classroom, is eliminated. No longer does a program have to be broadcast or distributed from a central source while everybody hopes that it will reach the appropriate classroom. The Piggyback system also minimizes the number of technical personnel required to operate and to maintain a school's television facility. One full-time technician, with student help is usually adequate for most schools.
The Piggyback system, like any other technological innovation, does cost money. However, a large initial financial outlay is not required. A school may phase in equipment in accordance with user demand and budget constraints. An off-the-air taping facility in the new 3/4" video cassette format can be purchased for less than $1600. (Although the copyright problems have not been resolved, the leading manufacturer of 3/4" cassette recorders includes a built-in tuner for recording directly off-the-air on all their cassette recording units. This may be a subtle hint to the educators.) For those who prefer the more established reel to reel recording format, 1" video recorders are available starting at less than $3000. Either the 3/4" cassette format or the 1" reel format is recommended for Piggyback systems in order to help insure high quality color reproduction. Less expensive 1/4" and 1/2" recording systems are available, but, in accordance with their cost reduction, provide lower quality and less stable reproduction. Quality reproduction is essential for effective television utilization in the classroom or learning center.

The utility of the Piggyback system may be expanded as funds become available. By adding a film-to-tape recording unit and by securing the necessary copyright clearances, the problems encountered in obtaining and utilizing instructional films can be reduced. If a school has only one copy of a film and three instructors request that film on the same day, two video tape copies could be made and sent to two of the instructors while the original film is sent to the third instructor.

Once again, the copyright problem comes into the picture. The video taping of copyrighted commercial films, without permission, is generally interpreted as a direct copyright violation. Therefore, it is recommended that schools secure permission for copying filmed materials. Permission for copying filmed materials varies with the situation. Many film producers will give blanket copying permission to schools which have purchased the original film. Some producers forbid copying their materials under any circumstances. Other producers require an arbitrary single payment or annual fee for exclusive rights to copy and reuse their productions. Any standardization of these or other policies will not come about until our obsolete copyright laws have been amended.

Let's forget complexity and take time to analyze the most efficient method of making instructional materials available. The Piggyback system provides maximum flexibility while retaining instructor control. This system also provides a method of utilizing the vast resource of instructional television program material that already exists and that will become more abundant in the future.
The potential is there barring only copyright problems, equipment is available, and programs are waiting. It's now up to us as educators to push for copyright reform in order to take advantage of television and utilize it as an effective instructional resource.


3 Siebert, op. cit. p. 34