THE miracle of space travel is today a spectacular reality. Yet there is a second miracle in space—relatively unheralded, only imperfectly grasped, and like the astronauts' voyaging, still in the delicate, dangerous, and frequently frustrating embryonic stage. That miracle is televised learning.

The term "televised learning" has been selected quite deliberately, in lieu of "Educational Television" (ETV) and the derivative "Instructional Television" (ITV). While the furtherance of educational goals by the electronic medium of educational television is indeed exciting, the implication is that of just another tool, a further audio-visual means, even a gadget, rather than an upheaval. Instructional television, however ramified, is more limited in scope, its immediate purpose being centered around the imparting of knowledge in effective form and format.

When we use the term "televised learning," the implied focus on the individual as he learns spotlights the elements of revolt—for it is the fact that people learn, not only what they learn and how they learn, that carries the seeds of sweeping and irrevocable change.

**Change Is Coming**

What changes are in the offing?

1. Individual independent study for the great bulk of factual learning—which is as yet the great proportion of what is taught.

2. As a consequence of Point 1, a vast shift of effective responsibility for transmitting the fact-centered, rote-memory materials from teacher to student.

3. In further consequence of Points 1 and 2, a significantly different role for the teacher—in simplest terms, guide-companion rather than encyclopedic mentor.

4. In the light of the foregoing, a complete reassessment of the role of the school, the nature of school buildings, the areas for expenditure, and nearly all other physical and fiscal phases of the educational program.

Evidently much of what is implied here is in the nature of difference in degree rather than difference in kind. We are aware that new curricula and revised method have long ago left behind much of the rote-memory, regimented schooling which is the legacy...
of tradition. Learning theory is beginning to evolve logical and comprehensive frames of reference for the practices and experimentation that have developed during the past half century. While the theory has been inductive-empirical, curriculum change has been the open sesame to a new educational stage.

They Do Learn!

Fragmentary and as yet minimal research continues to tell us that, whether they like it or not, or are conscious of it, people do learn by television. The three-year-old who once played with rag dolls, now sits, eyes glued to the tube, and learns—learns—learns what? Quite likely, to kill Indians! Suppose the same effort were devoted to teaching what a three-year-old should know, and still in exciting terms—what then?

Improvement rightfully holds its adherents—but innovation is the future's fabric. The future in televised learning has not yet even been guessed. It will be a different—and more shaking—future than anyone has yet foreseen.

There are three basic questions to be dealt with: What are the issues? What are next moves? What is the potential? As will be seen, one thread of meaning runs through these three questions.

The Issues

First issue is quality. Belief in quality always wins the headnodding of approval. Yet quality is a meaningless word unless criteria can be summoned to identify it, and evaluation undertaken to verify it. Criteria must be specific, their applicability general. Evaluation must be exacting, and the weeding-out process as a result of evaluation, must be complete. Too much ETV and ITV today, in this embryonic period, is the sort of “wasteland” decried in commercial versions. In the name of education, there is no valid excuse for this. Thus quality is truly an issue.

Second issue is acceptance. Mere use of the medium is insufficient. It must be used well. It is doubtful if what good usage is, or how it can be identified, has yet been explored adequately.

Some teachers are recognizing that the tube can be a very personal way of teaching—that each student is the possessor and communicator as an individual in relation to what happens on the fluorescent face. Good teachers know this. Good TV teachers practice it. The scope of acceptance runs the whole gamut from kindergarten child
to university chancellor. Unfortunately, acceptance at college and university levels is as yet minimal.

As Carpenter and Willis have pointed out, the first phase of acceptance is the determination to use television—the second phase will seek resources for design and use, and the attempt will be made to move ETV into mainstreams of education. They also see phase three as mature, extended utilization—yet in the dim future. Crux of this matter is that acceptance has hardly begun—in the main, it awaits tomorrow.

Third major issue hangs heavily upon the first two—support. Without fiscal, professional and creative support, television cannot enter the mainstream. Such support bears a close relationship to quality and acceptance; it is difficult to see which comes first, yet all must come.

Next Moves

The second basic question, then, relates to next moves. What are they? Again the term quality emerges. The best learning by television comes about when quality is built in by hypothesis, research, trial, revision, evaluation, and an overall creative understanding. Visual creativity and educational creativity are essential. However, such quality is vastly expensive, in both effort and money. Animation, for example, can cost $1000 per minute; "ordinary" ETV, from $500 to $10,000 per hour. Probably the best-quality television seen (if by quality we mean the carrying out of instructional intent), is the one-minute commercial. ETV and ITV are a long way from reaching such effectiveness.

Quality as a next move, then, must be deliberately planned, rigidly conceived and controlled, adequately budgeted. The best curriculum minds must be applied to this task—so far this has not happened in significant measure.

Next of the moves which must come is conviction. Leaders must be convinced. Few are now. Recently for the benefit of a group of university presidents, a word-picture was painted of brilliantly-produced, jointly-used humanities, social sciences, and science courses—courses at the peak of effectiveness, to release faculties for more significant direct relationships with students as individuals, and for seeking further subtleties of discipline. The icy stares which met this suggestion seemed

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to show scorn for such boat-rocking, and a hint of fear at such wild excursions from tradition. Yet until leaders are convinced, the sweep of change will not occur under controlled conditions.

The real threat is that the revolution will occur under conditions outside the educational purview. There is some evidence that this process already may have begun.

The third move (which is essential to gaining the second, conviction) is interpretation. To most educators ETV-ITV is a great unknown. Some view it as an esoteric, rather minor addition to the audio-visual bag of tricks—others as a fad which will pass—others as a threat to "good" education.

What televised learning means as a vital change in the culture is beginning to be evident in the cultural climate of the world at large. What it means as a truly revolutionary educational concept is as yet little understood. Interpretation must come—and rapidly.

**Potential**

These thoughts lead us to a third question: What is the potential? Obviously, a complete answer to this question would comprehend the advances from embryonic to fully mature stages. It is the essence of the present condition that full maturity is not yet conceived in the forms it will ultimately take. Therefore, any view of potential is partial, a guess, an estimate.

The prime criterion, quality, again crops up. The potential of televised learning is, quite simply, a better education, more broadly available, more individualized, more sophisticated in method, more effective in execution, more adequately translated into performance. This is a big order. It cannot happen overnight. It demands revisions in school policies and programs from nursery to graduate school.

The independent study unit bids fair to supplant the teacher for many functions—but the teacher will be needed more than ever, for with more sophisticated learning will inevitably come more complex developmental needs in the students, and other subtler dimensions in the society.

Subtlety of dimension will certainly embrace content. Increase in the amount and nature of content, and above all, more effective retrieval, is inevitable. What are the dimensions of excellence in education? One is surely a matrix of knowledge. Knowledge begets knowledge, although knowledge of itself is insufficient. Growing therefrom is the spirit of inquiry. Wanting to know precedes finding out. Knowledge in dynamic action is both parent and child of inquiry.

This thought leads us to a final potential in televised learning—to provide, develop, increase, and assure understanding. This end is so very different from the traditional pigeonholing of knowledge, or the secondhand transmission of a pattern of culture. Televised learning can bring such knowledge vitally—and when it does so, will promote understanding in a way that printing or talking can never do.

There must be, then, new models for televised learning—new theories, new applications, daring experiments, willingness to fail in order to succeed at last—the mark of the inventor. There is a revolution in learning at hand. Will it come in ten years or fifty? If fifty, is this too late?