Technology has allowed modern educators greater flexibility than ever before. We cannot assume that one method of teaching is correct for every teacher, for every subject, and even for one teacher at all times. This is especially true in use of audiovisual media. Various types of materials and various ways of presenting them are necessary. Following rigid rules of presentation can inhibit the valuable spontaneous reaction of the child. The student should have a chance to interpret the experiences these media bring him. Because many films used in schools are largely lectures, they do not allow the student to do this. These pictures lean heavily on the narrator's words for meaning. Such films limit the child's chance for interpretation by imposing other people's meanings on the images. But many excellent new films, relying on techniques of the silent filmmakers of the 1920's, have little narration. They leave questions unanswered and allow the child to experience the subject himself. (JK)
USE OF VISUAL MEDIA IN SCHOOLS

LEON AND THEA KOERNER MEMORIAL LECTURE

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USE OF VISUAL MEDIA IN THE SCHOOLS

The title of our topic tonight is nice and roomy. It can contain a lot of things. I am wondering what you expect to see and hear? I suspect each one of you has a different idea of the subject and perhaps different expectations for my contribution tonight. Obviously I have to be very selective. But one thing I will warn you about from the outset: I shall not attempt to give you a neat package of answers to the problems of "use of media in schools". Rather I shall bring forward some aspects which I consider are important today and will be in years ahead of us. I hope they will stimulate you to look at these problems in a different light.

I looked up the word "medium" in an encyclopaedia just to see if I understood it correctly. One book defined it as "a way of advertising", another as "means","agency", especially of communication. Once I was referred to "magic" and "spiritualism" and that struck a familiar chord with me. Many like to attach a magic or even mystique to this word, media, a lovely new word we can play with or use to impress people. Some people make a living doing exactly that. One can even take a doctor's degree now in "media."

Really, media is nothing mysterious, not even anything new. Media have been used in schools for centuries, certainly as long as writing has been used in formal education. Slates, blackboards, books, maps, globes, sea shells, stuffed birds and teachers are all media. Yes, the teacher is a medium through which the children learn - sometimes. Let's just look at some of those old classrooms. Some of us here may even remember these situations. Most of us have at least heard about them.--(SLIDES)--
Let's not assume that all was bad then. Life was simpler, methods were simpler, and media were simpler. A lot of teaching was done then, and I suspect a lot of learning resulted, sometimes dull and meaningless, but sometimes inspiring. Today we have so much more to work with, so many media at our disposal, and we ask ourselves: Is education any better now? Has the introduction of better buildings, more equipment and media, and higher teachers' salaries improved our education? Was it worth the high cost? You know as well as I do that this question is really unanswerable. Life is more complex, children have grown out of a complex and restless society - the whole question is very complicated, and I can only tackle some aspects of it. Yet, I still feel we must ask ourselves the question. I believe we all do, and in fact the students ask it, too. The politicians ask us for accountability reports; they want to know if the extra cost involved in using media is worth the money.

Before we go on let's take a look inside the classrooms to see what has happened during the last few decades. Some of these changes are very subtle and hard to pinpoint. Some changes are dramatic and easily seen. --(SLIDES)-- The traditional pattern of education was teacher centered. The teacher had absolute control and the better she maintained this control, the better a teacher she was considered to be. Now, in sharp contrast, education is student centered; the teacher is a partner in a team. The teacher doesn't teach all the time. She facilitates learning. We could describe him, or her, as "he-who-makes-it-possible-for-others-to-learn". We still see many formal, traditional patterns in schools and let's not assume that they don't work or are not good. For some students, in some situations, and for some teachers it may still work this way. Some very creative teaching and some very inspiring learning may still result. Yet, the less rigid, less formal
approach will no doubt spread very widely.

Put, let's guard against formula solutions - no one method works best. We must always allow for individual differences among students - and teachers. We talk of discovery method, inquiry method, team teaching, group learning, ungraded systems, unstructured learning patterns etc. We cannot afford to let any one of these, or the ones invented next year dominate and become dogma. Technology in education allows us exactly to be flexible - very flexible - and adaptable.

In the past, people sought the ideal method. They firmly believed there was an ideal method, if only they could find it. Not so today. If you study history of education, I think you may be struck by the similarities between the old classical methods - Plato's, Rousseau's, Montessori's - and our new approaches. The fundamental difference, however, is that we, partly through modern educational technology, can master more variety and offer more flexibility. This is the golden opportunity we should grasp. First, we must understand the media and learn how they can be used.

Great hopes were pinned on to the potential of educational technology, the use of TV, tape and even the computer as a means of teaching. In reality, progress has been much slower than predicted by enthusiastic supporters and businessmen. Part of the reason is the basic conservatism of teachers. But even more important is the lag in developing materials, so-called software to feed into the expensive hardware.

One very significant change in the school, and it is related to what I just mentioned, is the fact that the student now has direct access to materials, not only books, but also to visual and audio media. We can hardly overestimate the significance of this fundamental change. --(SLIDES)--
Now youngsters are allowed to operate machines themselves, and they usually do it with more confidence than many teachers, who seem to have a phobia about audio-visual equipment. Also the machines don't break down so often any more!

Not long ago, a school principal proudly said: "Nobody uses the school's equipment without coming to me. I have it all locked up". What a contrast between this statement and the actual situation in today's resource centre.

Our learning environments have become far more pleasant places to be in. The educational technology has necessitated a new approach in school architecture. I am thinking of the new "open plan schools" with large open learning areas rather than corridors and isolated boxes for classrooms. Here again many schools have gone too far and have forgotten the virtue of having at least some enclosed areas for special activities. I am also thinking of the media centres, resource centres or library resource centres. This multitude of names merely stresses the need for such service.

The most interesting development in this field is the fusion of book libraries and audio-visual collections into a single media centre. Some librarians are reluctant to accept such a fusion. And some audio-visual experts find themselves in strange company with librarians. Yet, today's student uses his eyes, hands, ears and mind to discover, explore and understand the world around him, and the library should stand ready to offer a broad and comprehensive service. As we change the methods of learning, and even re-think the goals of education, so must the image of the library also change. The quiet, solemn atmosphere in the school library must change as it becomes an integral part of the daily work of
the students. The library must, and can, help integrate all the media and encourage actively an intermedia approach to study. The library then becomes a total resource centre, which can make possible multi-media approaches to learning.

School librarians and media resource people have become vital in any school system. They can make a vast contribution towards transforming our school into relevant places of learning. The setting in which children work, the milieu created for them by the school staff, can make all the difference between a rewarding and unrewarding experience in school.

I have mentioned some of the most significant changes in our pattern of education compared to the way it used to be, - significant because the audio-visual media are now completely accepted as an integral part of any learning program - significant also because these changes affect almost every student in our schools. In many schools the media are in the centre of things. They are used often and in a natural way, integrated with other materials. The more they are used, the more hunger for media develops. But in some quarters we encounter a pre-occupation with utilization of media, the method of use. There is really nothing mysterious about their use, it is as simple and as complex, if you like, as learning itself. Good use of media is not much different from good pedagogy. Some people develop learning theories about it, some develop their own method, some write books about it, and some get a Ph.D for a thesis on "Controlled Research on the value of audio-visual materials and techniques for the teaching of upper elementary school subjects."

It has become very complicated to use media and naturally it confuses many teachers or it scares them. It is believed by some that there
is a method you should use, and a right one. It is in accord with western Christian philosophy, that there is one truth, one right thing, which we seek to discover. It is nothing new, for these theories on media were developed 20-30, even 40 years ago; they profess to give advice to the teachers. Even earlier than that we have such giants as Pestalozzi and Montessori, who both give most detailed instructions for teachers, and quite rigid at that.

I personally do not believe in any form of rigid methodology. I believe, rather, that each teacher should develop her own methods, suited to the particular group of students in front of her, and suited to the present mood of the class. Naturally, methods based on practical classroom experience can help a teacher think about the problem as long as these methods are not considered infallible dogmas. It is comfortable for many to follow a formula, but it hardly ever leads to an exciting learning experience. Yet some people make a science of methodology, such as this sample of how a film should be used in class:

1. Set the stage, prepare the students for what they are about to see and learn.

This may sometimes be a good idea, but at other times a very bad one. The element of surprise is a positive one - and often I would rather not tell the children what they can expect to see and learn.

2. Prepare students for vocabulary in film.

This could be a dreadful procedure to follow for some teachers are tempted to write all the new words on the blackboard, before they have any real significance to the children and most kids are turned off right away when
confronted with things to remember under a threat of a test or an exam. There is a danger that all the value of a film in terms of experience is killed right there before the film is screened.

3. Screening the film.

4. Discussion.

5. Repeat screening.

6. Follow-up, tests, etc.

There is not necessarily anything wrong in all this, but methods tend to be dogmatic and rigid, and what is missing is the unexpected, the surprise, the spontaneous reaction of the children, which may suggest doing something quite different from what is in the rule book.

The Ontario Royal Commission Report, "Living and Learning", has an interesting passage on this:

".....the spotlight in the school is shifting from methods of teaching to experiences for learning, and the truly professional teacher now employs in each situation the methods that will enhance the quality of the pupils in his care. He creates the situation that most effectively involves the pupils. He recognizes the need to capture or arouse interest, to provide opportunities for inquiry, discussion, discovery, organization, review and evaluation, to ask a searching question or to make a useful suggestion at the right time, and to guide pupils in the selection and use of a variety of resources. The forming and understanding of ideas and the development
of skills and attitudes find their place within many learning experiences, and are not treated separately in formal or 'type' lessons."

I now want to talk about format of our visual learning media, because I believe we are at a most significant point of development, which may well make these media far more effective and inspiring than ever before. To illustrate my point of view, we must go back in time. I don't know how many of you are familiar with the old silent films; some of you may even remember them from your childhood. Some of you may have seen them in film societies. The silent feature films reached a very high level of sophistication, particularly towards the end of the era in the twenties. The film artists then used a very refined visual technique to depict high emotions; in fact, some of them are very moving to watch even today. As an example, I could mention the magnificent film "Joan of Arc" by Carl Dreyer and the Russian films by Eisenstein and Pudovkin, de Mille's and Chaplin's films.

Then around 1927 came the "talkies", the first sound movies. The initiative for this development did not come from the artists but rather from the technicians who always tend to dream in naturalistic terms -- they want to create the perfect reproduction and by adding sound to the already moving image, the film moved one giant step closer to the illusion of total reality.

It is interesting to note that Thomas Edison worked with motion pictures as a supplement to his phonograph which he felt became more realistic by adding moving images. It took 40 years before the technical dream came true. The artistic aspect of this technical innovation was left to the film-makers.
The motion picture camera was noisy and had to be enclosed in an enormous box, heavy and almost immovable. Consequently, the first 100% synchronized sound films had long sequences without any action. Typical was Al Jolsen's "The Jazz Singer" (1927). Artistically, this pushed the motion picture back to the year 1900. Gradually the camera moved out of its heavy box and became less noisy. Still, the sound technique hampered the film in many ways, because the relatively stationary mike limited the range of action. The film camera had lost its earlier mobility, and the film director had to restrict himself to much simpler camera techniques than he was used to when directing silent films.

Because of these new restrictions it was harder to shoot films in the great outdoors. The mike picks up all the disturbing background noises. So the film moved into the studios, using the techniques of dialogue familiar from the stage. The film dealt with human problems played in rooms. --(16 MM FILM)--

These were only teething problems; naturally the sound film, the double art, as Grierson called it, film plus sound, constituted a new and exciting art form. Two forms of sound films developed:

a) Films with 100% natural sound with dialogue and romantic background music.

b) Films with no 100% sync sound but with narration. In fact, silent film with sound added after. This type of film could keep the effects and cutting technique of the old silent films.

It is this second form of sound films which interests us here, because this technique was widely used for early documentaries, for
lecture films and almost all educational films, even today.

The fact is that travelogues and lecture films almost equal classroom films. All the early classroom films are really nothing more than illustrated lectures. Often, they have puffy narrations, very subjective and highly editorial in character. They comment without a pause on all the things seen on the screen, and often in a solemn sermon-like tone. A classical example are these phrases commenting on a bird in flight: "Birds fly by flapping their wings up and down in the air", and "See how majestic these beautiful birds look against the rosy sky of the sinking sun".

--(16 MM FILM)--

It is only natural that in the days of teacher-centered education, schools readily accepted this form of film - the lecture film. It explained everything and it talked all the time and no music was allowed. Some felt that these films were almost as good as the textbook and why not give the children a reward once in a while, when they are good.

So films were used quite a lot in elementary schools. Educators reasoned that as students grew older they could not afford to see films because they had serious work to do.

It is understandable that films in those days were referred to as curriculum films or text films because they were made to fit the curriculum and the textbook. The degree to which they fitted normally determined their quality and their success.

One of the biggest commercial producers of classroom films in the U.S. still call their film division the Text Film Division, and other companies have the word curriculum somewhere in their name.
This type of educational film has discouraged many teachers and students. I think the not uncommon teacher distrust in films has something to do with this stereo-type format of classroom film -- lots of talk, no music, and unfortunately very often dull pictures which lean heavily on the narration. If you turn the narration off, there is very little left because the pictures cannot stand on their own.

Some countries in Europe hung onto the silent film for use in schools, not because of the added cost of sound films, not to protect vested interests, but because teachers in these countries had learned to appreciate the particular value of the silent picture language. In these countries the teachers had at that time the initiative and control; it lasted longest in Scotland and in the Scandinavian countries. I was personally involved in the production of silent films, both b&w and colour in the 1950's in Denmark. I know how strongly the teachers felt and how creatively the films were used. We produced sound films as well, but fewer of them and only when the sound could add something to the learning experience. When I came over here in 1955, I found that only the film-makers, at the NFB, were interested in silent films. The educators were not. In fact, a senior Ontario education administrator told me that silent films were useless and that he had thrown all of them out. **--(SLIDES)--**

A few years later in the 1960's the 8 mm single concept film loop was invented by Technicolor in the U.S. These films, as you know, are short and silent. The new format and the new projectors caused a small sensation on the North American market. They were hailed as a great new learning device which could solve many of our problems; the single concept, the visual approach. What it all means is simply a grand return to the schools of the silent film, now re-invented! No
wonder the 8 mm short silent films first caught on in the U.K., where teachers still recalled the pedagogical potential of the silent film. Technicolor had first thought of this device as a home market item. Only in Europe did they learn of the school potential -- and in fact this is where the 8 mm loop projectors are now used both in Europe and North America - and not in homes.

I rather suspect that the enormous success of silent filmstrips in North America has to do with the fact that the silent film disappeared so quickly in Canada and U.S. to give way to the lecture type sound films. The silent filmstrip provides the only truly visual learning medium, which tells a story or develops a topic in visual language. Few people outside the schools fully appreciate the power of this inconspicuous little tool. It has risen to new prominence in the resource centres, as a medium for individual studies.

Filmstrips, though, have changed a lot during the last 10 years. They, too, were descriptive and exploratory in approach, but they adapted to the new needs by including questions, problems and arguments, which sit there on the screen begging for an answer.

If you agree with these observations, you will recognize that most educational films are still lecture films although lecture methods are no longer considered good pedagogy. Producers still permit their narrators to steal the show by blurting out ready-made generalizations, while students sit wordlessly staring at the screen. Student participation and student involvement are totally lacking.

I believe we are witnessing some fascinating changes in the educational film. Producers are genuinely concerned about learning
problems and are prepared to work actively with classroom teachers. At the same time, teachers have greater understanding of technology. A collaboration between the two is essential for good results; the film producer must learn to accept the teacher as his equal and teachers must learn enough about the craft of film making so that they understand the potential and limitations of the film medium.

Strange as it may seem, this was not always the case. True, some companies invite an educator, usually a university professor, to evaluate their film when it is almost finished. This expert is asked to put his name and Ph.D on the title as a rubber stamp. But all too often, he is not an active classroom teacher, and the expert is not part of the work team from the beginning of the project. As a producer of learning films, I always see it as my role to arrange 'marriages' between film-makers and teachers.

This new situation has resulted in novel approaches to classroom films. Producers are more and more using interesting forms of narration - like the NFB film, "Rise and Fall of the Great Lakes", which uses a folksong as a narration - a folksong composed for the film. I consider this film one of the best classroom films of recent date.

Other producers are making film with a minimum of narration and a maximum of visual content. A 15 minute geography film would have only 4-5 minutes of talk - the rest is natural sound and visual experience, clear and meaningful pictures which tell the story without any need for verbalization.

Yet another type of sound film produced by Visual Education Centre has no narration at all; these films are inteneded for discovery and
exploration. They give an opportunity to look and learn without somebody talking at you all the time. There is no doubt the students like these films. They are tired of being talked at all the time. Such films can be used at many different grade levels and for a variety of different study purposes. Such films are truly visual films and the sound is all natural sound used only when it can enhance the understanding of the topic. --(16 MM FILM)--

I think we can be really excited about this new trend – a trend towards a more visual film, which challenges the youngsters and leaves questions unanswered. Students are no longer excited about seeing a film as such, they see them all the time, on TV and elsewhere. They expect imaginative and challenging films. No effort should be spared to make a classroom film good. The time is over when a classroom film is a cheap production. We need the best technical quality possible, the best artistic quality and the best pedagogical approach. For all these, we need very talented people.

Sometimes we are disappointed when students don't react positively to films we are excited about. Much depends on the mood of the students, the conditions of the screening or something else less tangible such as individual preferences. Sometimes the media used are not right for the situation at hand.

At other times, however, films work better than expected. reactions often surprise us and inspire us to new efforts. I can only repeat what I started by saying: visual media don't perform miracles. But if we mix the media, integrate print with non-print and use a multi-media approach in all we do in our schools, then the variety and flexibility of these will, without a doubt, touch the students in many ways, and even challenge them.

But the use of media requires talent and imagination. It is a truly creative process as important as producing the media.