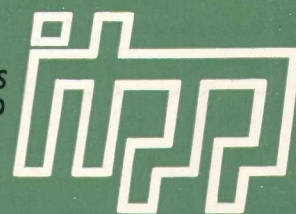


# The Communicator of Technical Information

Formerly 'the bulletin'

No. 1 October 1968

THE JOURNAL OF THE INSTITUTE OF TECHNICAL PUBLICITY AND PUBLICATIONS  
LTD



# AIMS AND OBJECTS OF THE INSTITUTE

The Institute was formed in 1964 to promote the interests of all those who are concerned with the arts and practices of communicating and presenting technical information. The objects are threefold :

- To establish and maintain professional standards.
- To encourage and co-operate in professional training.
- To provide a source of information on, and to encourage research and development in, all aspects of this subject.

For training and teaching, the Institute provides a forum for discussion of problems, and maintains close liaison with the Universities, Colleges of Art and Technology, the City and Guilds Institute, and the Ministries concerned. It will be instrumental in helping to develop new schemes of training and re-training, particularly those to be developed as a result of the formation of the Engineering Industries Training Board.

For industry, the Institute provides an information service on professional standards and related matters. It enables those engaged in the arts and practices of communicating technical information to exchange ideas and to improve standards in this somewhat neglected sphere. It works closely and in co-operation with other bodies at home and abroad, whose interests are similar.

For the individual, the Institute removes the sense of isolation so long felt by those working in this profession. It brings together a wealth of opinion on professional practices and has already done much to bring about a better appreciation, at management level, of the value of these skills.

The growth of the Institute has been encouraging, and there is a growing realisation of the magnitude of the task it has to do. Regular meetings, lectures by experts, and discussion groups are a big feature of the Institute's activities; most of these have so far been held in London but the field is being widened. Visits to organisations who are specialists in their own spheres, have been fruitful. All these activities are being expanded with vigour and enthusiasm.

Detailed information about the Institute is readily available on application to The Hon. Secretary, c/o Coventry College of Art, Gosford Street, Coventry.

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## Editorial

This month sees the end of '*the bulletin*' and the launching of *The Communicator* – new title, new format, new style, new layout. It is, we think, more in keeping with the aims of the Institute, as set out on the opposite page.

Another significant change is the inclusion of considerably more advertising matter than before. The economics of publishing being as they are, it is hoped that even more advertisements will be placed in our journal, so that it may grow in size and quality. It also makes economic sense, considering that the print order has been increased to 1,000, and the number of pages – for this issue at least – has been doubled.

Details concerning advertisements, circulation, and subscriptions are given on this page. It is hoped that all members will make efforts to promote the journal in every way.

*The Communicator* is the journal of the Institute. It is your journal and all readers are invited to offer suggestions and to make constructive criticisms where appropriate – in short, to participate. Simply write to the Editor.

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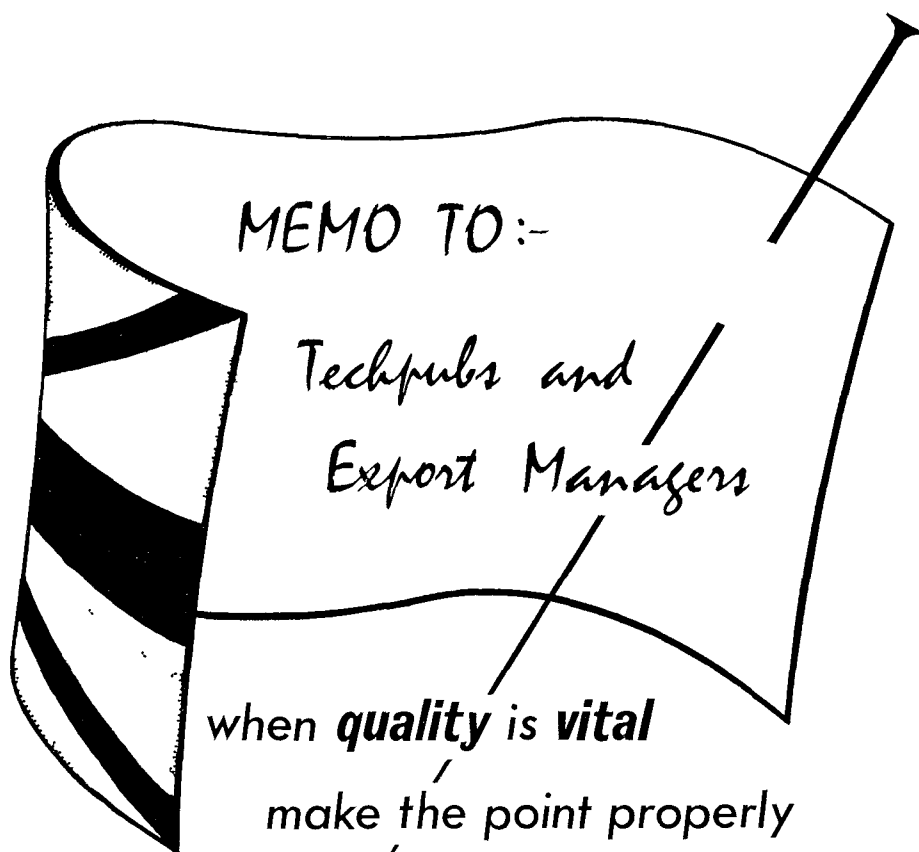
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*The Communicator* is sent to all members of the Institute (and certain known leaders in the profession) free of charge. Copies can be purchased at the rate of 10s. each or £2 for four issues. It is suggested that members approach their own libraries with a view to their companies taking out subscriptions. Members are also asked to nominate on the form below one interested person known to them, to receive one free copy.

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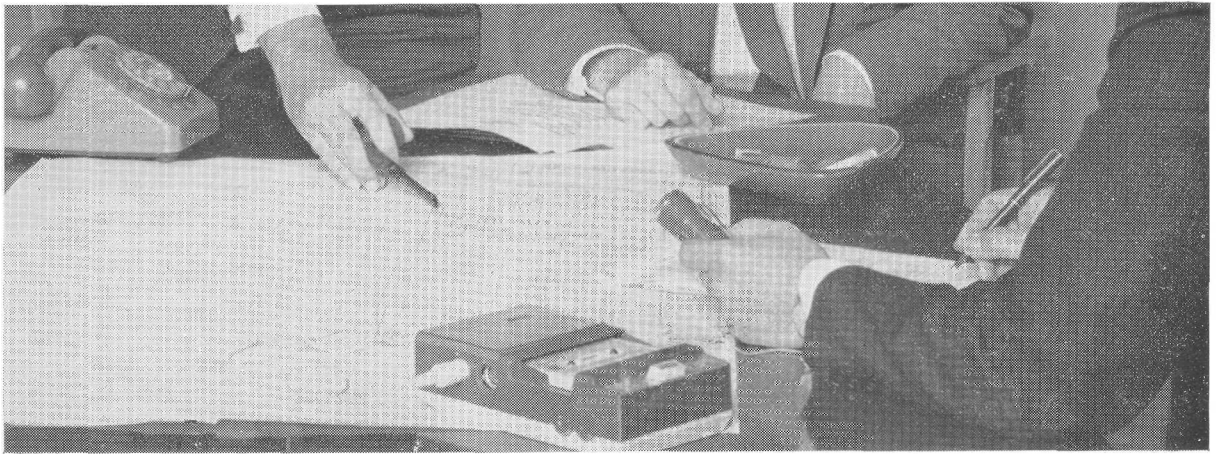
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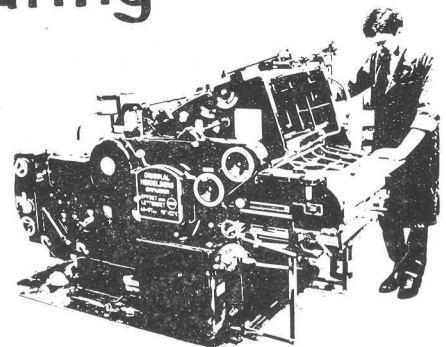


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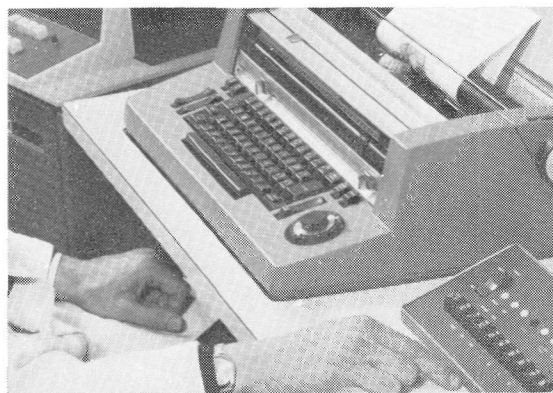
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# Education for the Career Communicator

Professor Sidney W. Wilcox, visiting lecturer at the University of Wales Institute of Science and Technology, and currently on leave from Arizona State University, U.S.A., presented this paper last May 13th at the Lecture Theatre of the Royal Society of Arts, London. The meeting was sponsored by The Institute of Technical Publicity and Publications, The Technical Publications Association, and The Presentation of Technical Information Group.

Prof. Wilcox defines the technical communicator, relates how Arizona State University became interested in the education of the career communicator, and describes their B.Sc. degree course in communication technology.

'Education for the Career Communicator.' There are no strange words in this title, but just to be sure we are thinking along the same lines, I shall tell you what I think it means. I think it expresses an idea that could lead to the recognition and development of a new species of industrial specialist: the Mark II technical communicator, the college trained, efficient, capable expert in his field, coming to his position with the same level of preparation as the engineer or scientist with whom he is to work.

Technical writers, publications engineers, information scientists, and many more titles have been given to this necessary member of industrial and research teams in our expanding technology: and a very great number of in-plant training courses and a few college level courses are currently being offered to him, but very little has been done in America to give this worker a formal education. In Britain, I am sorry to say, he has fared even worse in the institutions of higher learning. I tried several descriptors related to this occupation in the *Yearbook of Technical Education and Careers in Industry* for 1967. The only entry I found was for technical journalist. I think some excerpts from that entry would interest all of us.

A fully trained technical journalist will be able to write a report and see it through the stages of sub-editing, layout of illustrations and make up, to the final page as it appears in his journal.

The average young newspaper man who has been on a local weekly newspaper for a few years is most likely to be the sort of recruit sought by the trade and technical

editor. He will be expected to take a lively interest in the field covered by his journal and to take pains to acquire the special knowledge necessary. Shorthand is an advantage and the ability to write clear, concise English is essential.

There is no recognized training scheme for trade and technical journalists. Most of the best men in this branch of journalism have trained themselves in their subject over the years which they have spent with their journals.

The ideal trade and technical journalist is an all-rounder, competent in all branches of editorial work, and willing to identify himself with the trade or profession whose activities he records.

(Edited by H. C. Dent, 11th Annual Issue, A. and C. Black, London, 1967. All of these passages from p. 1266.)

If this is a representative sample of how the book makers regard technical communicators, one might infer that the rest of us have some missionary work to do. It should trouble us some that there is no recognized scheme for training even the technical journalists whose duties are so well described in the handbook; and the length of time it takes is downright discouraging: 'a few years' on a local weekly before he can even begin the first stage of trial and error learning, then another long stretch 'over the years' before he acquires the knowledge and skill needed to become a technical journalist. This could take twenty years.

Maybe this example is a bit overdrawn, but it illustrates two points clearly: 1) that no formal programmes are being offered for the career com-

municator, and 2) that the general public is not yet aware of the significant role now being played by all the other people who are included in the technical communicator's category. Perhaps we have not coalesced enough yet to be given a genus name, such as technical communicator. But let us, at least for the purpose of this discussion, consider everyone a technical communicator who makes his living by transferring information with purpose in any of a hundred different ways. He writes, edits, re-arranges, illustrates, reproduces, stores, retrieves, translates, and adapts classified knowledge for a given purpose. His product is not science or engineering, but a document, an appropriate package for the information generated by science and engineering. In some places he works on the research team; in others, he works in the publications department. Everything he does is related in some way to the success of a project, a business, a goal to be achieved by government or industry.

In defining the technical communicator we shall not be able to answer such questions as: Is the technical communicator a management-oriented professional or is he an hourly paid labourer? Does he work by a minimum pay scale? What is the range of his duties? Does he have a code of ethics? I suppose you have already been debating these things at some of your meetings. I know STWP has – at every annual meeting. None of these, it seems to me, are key questions. The big question I wish to pose here is: Have we developed enough to prescribe a standard, identifying education? I think so.

## *Communication Studies for Engineers - the forerunner*

At Arizona State University we first became interested in the education of the career communicator from our experience in teaching communication to engineers, which, incidentally, has been my sole responsibility there since the engineering school started in 1955. Perhaps here I should make a distinction between communication studies for engineers and communication technology for the career communicators. There is a difference in the way they are taught and the extent to which they are taught. (A detailed account of our teaching plan for engineering students will be found in my Preface to *Technical Communication*, International Textbook Company, Scranton, Pa., 1968.)

To get a better perspective on the teaching of communication to engin-



eers it is best to look backward a few years. Technical communication courses in American engineering schools before 1957 were few in number and being taught in the sophomore year somewhat like another English composition class. The big shift to more literate technical graduates can be traced to a traumatic experience which profoundly affected the whole education system of the United States: the loud, clear, and somewhat ominous beep of that first Russian Sputnik. We had been too complacent, too smug, too confident in our elementary and secondary schools to question whether our educators were doing an effective job in teaching the rank and file of American youth in mathematics, science, and English. Suddenly we knew we were not getting what we were paying for. The whole country took up the debate of 'why Johnny can't read' and 'why engineers and scientists can't write'.

### *Mental belt tightening in rigorous courses*

In the crash programmes which followed, the permissive, picture reading, non-competitive theorists were deposed, and the three R's came back – even phonetic reading. This mental belt tightening was felt also in more rigorous language, maths, and science courses in the colleges. The Congress set aside ten million dollars (£4.17 m) to start Project English, a research programme to discover better methods of teaching English, and literally opened the gates of the treasury through the National Science Foundation to support every conceivable scheme for improving research and teaching in science and engineering. And many billions of dollars have since been poured into scientific research.

One of the side effects of the information explosion which followed the crash programmes in research was that it put into sharp focus the need for better communication in science and industry and better ways of indexing, storing, and retrieving technical information. Then came the Weinberg Report\* which indicted just about everyone as being responsible for the

information lag in American technology. Educators at all levels of our system were urged to improve the teaching of maths, English, and science and to initiate courses and programmes which would improve the communicating abilities of graduating engineers and scientists. Industry and the technical societies were challenged to upgrade their own people in the use of the language. One seminar which resulted directly from the recommendations of the Weinberg Report was the 'Seminar in Engineer Writing Improvement Programmes' sponsored by the Institute of Electrical and Electronics Engineers in New York, February 1964. It was my privilege to be one of the panellists for this event.

Last year a nationwide survey of working engineers made by the American Society for Engineering Education revealed that technical writing and speaking ranked third from the top as the subjects most needed in the engineer's education. Only algebra and general physics ranked above it.\*\*

At Arizona State our dean, Dr Lee P. Thompson, anticipated this by including a high-level technical communication course in the engineering core while the programme was still in the planning stage in 1955. The course we teach our engineers is not a part of our communication degree programme. We think all engineers, to function at their highest potential, must be literate and able to write and speak clearly. Our communication course in the engineering school preceded our degree programme for career communicators by about seven years, and it is still growing as the institution grows.\*\*\*

### *Career Communicators*

During my early years in teaching engineers I became interested in the work of the Society of Technical Writers and Publishers. One of our most emphasized goals is the upgrading of our own members and the guidance of young people who want to make a career of technical communication. I soon became convinced that these people needed a formal degree programme which would put them on an equal footing with other highly trained

workers. One of the most important and difficult jobs in the whole research-manufacturing-marketing chain was being done by people whose educations were not very close to the type of work they were doing. In this day, employers expect new employees to be educated for the job they are hired to do. We bring law, medicine, engineering, nursing, business administration to the campus. Why not this?

I am sure not one in this audience would think of what he does as being so insignificant that not a college on earth had provided a curriculum for it. I certainly do not, and a goodly number of others in America are of this opinion, too. We think the career communicator should go to his first job at the completion of a four-year degree programme just as well educated for his work as an engineer, a teacher, or an architect would be for his. We want to give industry a graduate with plenty of potential, yet with enough training that he can be productive very soon after he goes to work. We believe this can be done as well for the communicator as it is for any other kind of worker.

### *Planning the degree programme*

In the summer of 1964, I made a rather extensive survey of opinion among the experts, those attached to universities and those in industry and government agencies, to find out what they thought of the idea of developing a curriculum for the technical communicator and what should be included should I succeed in devising an acceptable proposal for a degree curriculum at Arizona State University. When I had sorted out all of their ideas and had added my own, I found that the range of subjects needed could be roughly classed as general education for the background and specific for the special skills which were needed. I subdivided the special skills into writing, editing (including publications management), drawing, and information handling. Using my own judgement for the general education that should be needed, I set to work on the proposal which was finally adopted\*\*\*\* by our university curriculum committee, a programme of 130–136 semester hours that fulfilled all our requirements for the Bachelor of Science degree.

\**Science, Government and Information: The Responsibilities of the Technical Community and the Government in the Transfer of Information.* A study accomplished in February 1962 by a panel under the auspices of the United States President's Science Advisory Committee, under the chairmanship of Alvin Weinberg, U.S. Government Printing Office, price 25 cents.

\*\**Interim Report of the Committee on Goals of Engineering Education*, ASEE, April 1967, p. 75.

\*\*\*ASU enrolment in the School of Engineering 1967–1968: Undergraduate, 1541; Graduate, 751. In the Division of Technology, 493. In the whole College of Engineering Sciences, 3020. ASU undergraduates, 16,835; Graduate, 5,296. Total ASU, 22,131.

\*\*\*\*See my original proposal in the STWP *Proceedings*, 1965, and 'Communication Technology: a New Bachelor of Science Degree Programme', STWP *Review*, January 1966, pp. 7–9.

## Semester hours

I am sure most of you know what semester hours and degree requirements mean in the American system, but for the sake of everyone's appreciation of the problems we encountered, I think I should make a few explanations. The bachelor's degree in the U.S. is somewhat analogous to the same term used in Great Britain. It is a four-year programme instead of three, because it starts at about the midpoint of your sixth form. In some ways I think it is more flexible and easier to adapt to a specialized field. You have eliminated most of your drop-outs by the end of the sixth form. We let them have a go at the first year in college. They drop out there if they cannot pass at least half of their courses. A flunk-out student, however, may return at a later date and after a time on probation re-establish himself. If his grades continue to be good enough, he would in time be allowed to graduate.

Every degree programme at the university has its own core of required courses, plus the uniform regulations which apply throughout the university for awarding the bachelor's degree — one year in residence, physical education, military training, payment of all fees, etc. The first three years may be completed at any accredited college, but the last year (or two full semesters) must be done in residence at the degree granting college. It could be an institution consisting of a single college, or any one of the universities with a similar degree programme. The distinction between college and university is not one of quality, but of size. Any institution with more than one college could be called a university. College refers to a faculty and a programme of studies leading to a degree as it does in Britain, but in America a single college institution may have higher standards than any of the colleges on a university campus.

Most colleges and universities open in September for a nine or ten months' term of two semesters, each of which runs sixteen to eighteen weeks, followed in June by a summer session of ten to twelve weeks. Some institutions have a tri-semester plan, and some have the four-quarter terms covering the full year. But the course load in all systems is based on the total number of hours the class meets each week. For example, enrolment in a class which meets two hours each week for one semester would be worth two credit hours. The average course load in a two-semester system is sixteen to eighteen hours per

week, and this may be extended to twenty or more if laboratory sciences are included.

Class attendance is generally mandatory for a passing mark because most of the assignments are done outside of the scheduled class lecture, and it would be pretty futile to attempt some of them without having heard the lecture. Generally, a final examination must also be passed before credit is given for the course. If a student makes a failing grade when all his work for the course is evaluated, he receives zero credit or nought credit hours. If a failing mark is made in a required course, the student must re-take it and make a passing mark, or fail to graduate.

## Passing grades

The final judgement of the pass or fail in any course is up to the individual instructor, and no one in an American university or college can change a course grade except the instructor. Though a few universities in America have a pass or fail grading system, most still use a system involving three or four passing grades — A, B, C, D — from which an index is calculated to show the student's standing. Usually the index required for a bachelor's degree will not represent less than a C average. I have known cases in which a student had completed all required courses with passing grades, but who was not allowed to graduate because his index was too low.

Course work and degree requirements are very much like this in advanced technical schools or technological institutes and colleges. As one moves down the different tiers of technical schools, more and more emphasis will be found on training and less and less on education, so that at the lowest level all that remains is training in some trade. American technical schools, like the British, prepare the technicians for all levels of specialization in industry. Ideally in a research team three to five technicians work with one engineer, and five to seven engineers are assigned for every research scientist on the doctorate level. We have had to use more engineers than this because really high grade technicians are still in short supply.

Our own Industrial Design and Technology School, a division of our College of Engineering Sciences, offers the four-year Bachelor of Science programme in seven fields, one of which since September 1964 has been communication technology. Technical communication as a general subject can be and often is given in a limited way in both engineering and in technical schools to improve the quality of work done by the technicians and the engineers. Sometimes handbook writers, lithographers, printers, industrial writers, artists, and the like are trained in American technical schools. But so far as I am aware, the only Bachelor's Degree in communication technology is the one at Arizona State University.

TABLE I

The B.Sc. degree in Communication Technology check sheet, showing how the degree requirements are met by the suggested programme from Table II

General Ed. Requirements			Departmental Requirements		
Subjects	Hrs. Required	Hrs. from Table II		Hrs. Required	Hrs. from Table II
English Composition	6	6	<b>Major Field</b>		
Humanities	8	9	Writing	16	20
Behavioural and Social Science	8	9	Editing	11	11
Science and Mathematics	17	17	Drawing	11	11
Physical Education	1	1	Information Science	6	6
Military Science	6	6	Sub-totals	44	48
Sub-totals	46	46	<b>Minor Field</b>		
<b>Requirements combined</b>			Mathematics (above College algebra)	9	9
General Education	46	46	Engineering		
Dept. Major	44	48	Electrical	3	3
Dept. Minor	26	27	Computer	3	3
Electives	10	14	Mechanical	3	3
			Materials	3	3
			Graphic Art	3	3
			Offset Litho	3	3
			General Psychology	2	3
Grand totals	126	135	Sub-totals	26	27

## A Critical Look at the Curriculum

Now that we understand how Arizona State University got into the communication business, and how to evaluate courses and semester hours, we can examine our curriculum more critically. **Table I** shows how the university general education requirements for the B.Sc. degree have been met by the departmental major and minor requirements that appear in the detailed four-year suggested course plan of **Table II**.

How did we decide on just these courses and not others? There were indeed many others. My first draft contained a third more courses. The number was whittled down to bring the total number of semester hours within range of the other four-year bachelor's degree programmes, 130–136 hours. We will undoubtedly develop a graduate

degree programme at some future time which will permit greater specialization. For the bachelor's degree, however, the choice of subject is about the best we can make at this time, considering that, with the exception of three new courses, we were restricted to choose courses already in the university catalogue. Even so, we came out rather well with the general education courses, and we have enough depth in writing, editing (with publications management), graphic art, and information science to make an all-round worker.

You will notice that certain subjects are asterisked on **Table II**. These asterisked courses are the ones similar to or in common with those in a new four-year degree proposal in technical publications at the George Washington University, the courses for which were selected from frequency data recently obtained in a nation-wide survey by Dr Vernon M. Root, who you may

recall is a past president of STWP. He asked technical publications managers to list in the order of preference the courses they would most like their publications people to have. The data was collected from answers (over 200) to questionnaires sent to technical publications managers in companies and government agencies representing all sections of the U.S. and seventeen different kinds of industrial operations. What is significant here is that Dr Root's degree proposal, based on independent study of an entirely different kind and four years later in time, is so nearly like this one, the difference being no greater than would be expected even from two people working with the same data.

Dr Root estimates that there are 25,000 persons in the United States engaged in technical publications, with 800 being added each year. One can only conjecture what the total would be if all of the people in the entire technical communication spectrum were counted, extending from the infra, manually dominated jobs such as printing and filing of technical information to the ultra, creative and sensitive jobs of writing, editing, managing, producing, and handling of documents.

### Uniform curriculum

On first considering a uniform curriculum for all these varied skills one is likely to give it up as impossible. It would be if the curriculum were a training course. A degree programme is not, and cannot be, just a training course. It is true that at the present time the student has very few options and a limited number of electives. But we think this four-year programme is a proper balance between general education and the applied science courses needed to make a well-rounded person with adequate preparation in at least the four main activities of the communicator – writing, editing, drawing, and information science. The level of proficiency in the various fields will depend, of course, on the aptitude of the individual.

We admit that some communicators could get along without analytical geometry and calculus, but we think most will need them. And we are also ready to admit that a pretty fair technician in many of the jobs in the communication spectrum could be made in two years. But the bright boy or girl who wants to make a career as a technical communicator will benefit more by taking the degree programme. From my own academic and industrial experience, I

**TABLE II**  
Suggested course plan for B.Sc. in Communication Technology

<b>FIRST YEAR</b>			
<b>Title</b>	<b>Hrs.</b>	<b>Title</b>	<b>Hrs.</b>
English	3*	English	3*
Technical Drawing	2	Production Language	2
College Algebra	3*	Communication	3*
Introduction to Business	3*	Technical Problems	2*
General Graphic Arts	3*	Elements of Speech	2
Physical Education	.5	Mass Communications	3*
Basic Military Science	1.5	Physical Education	.5
		Basic Military Science	1.5
	<hr/> 16		<hr/> 17
<b>SECOND YEAR</b>			
Technical Illustration	2	Technical Illustration	2
General Physics	4*	General Physics	4*
Psychology	3*	Electricity and Electronics	3
Mathematical Analysis	4*	Mathematical Analysis	3*
Reporting	3*	Advanced Reporting	3*
Basic Military Science	1.5	Basic Military Science	1.5
	<hr/> 17.5		<hr/> 16.5
<b>THIRD YEAR</b>			
General Chemistry	4*	Business Communication	3*
Communications Law	3*	Copyreading and Editing	3*
American Literature	3*	American Literature	3*
American Cultural History	3	Principles of Social Anthropology	3
Offset Lithography	3	Technical Illustration	3*
Materials and Industrial Processes	2	Digital Computer Programming	2
	<hr/> 18		<hr/> 17
<b>FOURTH YEAR</b>			
Nomography	2	Technical Writing	3
Technical Documentation	3	Information Transfer	3
Business Report Writing	3*	Introduction to Semantics	2*
Principles of Advertising	3	Magazine and Industrial Journalism	3*
Principles of Management	3*	Man and Machine	3*
Elective	2	Public Speaking	2
	<hr/> 16		<hr/> 16

find that the more competent a person becomes, the more he is paid and the more likely he is to advance in rank.

Now that you have seen the courses listed in neat bundles of eight semesters, it doesn't appear such a formidable task. Why wasn't it done long ago? I really don't know. Maybe we just had to grow into it. Imagine the effect on your life and work if you had completed a programme such as this when you were only 22. I think it would have reduced my apprenticeship by at least fifteen years. This is why we refer to our degree programme as a short cut. It does save time. In my estimation four years of systematic study develops a person more than he would normally develop in ten years on the job. If I were adding a new writer, editor, artist, information handler, or publications supervisor to my staff, I would be pleased to know that the prospective new employee had completed the work laid out in Table II.

Some freelance teachers of industrial writing courses have said our degree programme was too long and difficult. We don't think so. The survey by Dr Vernon M. Root, referred to earlier, produced another interesting fact: production managers of industrial publications departments preferred to replace people in their employ with college degree holders. These managers know that the communicator's work will become more complex as our technology continues to grow. It would appear that the entirely self-taught technical journalist we heard described at the beginning of this discourse will find the going even tougher in the future.

### *Appraisal of the Graduates*

What will our graduates have that is any better than the liberal arts and science degree holders now coming into the field? For one thing, a head start. They will go more directly into productive employment. For another thing, they can be more readily adapted and trained for specific communication assignments; they will not shy away from strange situations or strange subjects. They will know how to cope with job duties with a minimum of break-in time. These Mark II communicators will also be paid more than the poor Joe who works years trying to break into technical journalism. They won't be English majors trying to earn a living in the factory nor engineers who couldn't make the grade. These will be seasoned, straight timbers that will carry their share of the load. In their

day they will be known by their education; there will be no problem about a name.

We can say this confidently because the fourteen fine people now in the communication technology degree programme did not switch to this curriculum because they lacked intelligence or guts to do a science or an engineering course. They chose this because they wanted to study and work closer to the present. They wanted to work where they could see and touch the wings and wheels and rockets and microscopes they will help to build. Mrs Betty Dickie, a former engineering secretary, will become the first graduate in just two weeks from now. Two Motorola employees will complete their requirements during this summer.

### *The Prospects*

Are we sure our programme will succeed? Absolutely. We are still small in volume because we have proceeded with caution. And it was a good thing we did. The long copper strike in Arizona left us without two pence to rub together. And we didn't get the new faculty we had expected. The first full-time faculty member, presumably a chairman, has now been scheduled to begin work July 1969.

Of course we know that improvements can still be made. One thing I should like to see done eventually is to develop a two-year certificate programme within our four-year curriculum which could be useful in training technicians for such jobs as industrial artists, handbook writers, offset printers, etc. This would supply some of the lower level technicians needed and it would provide half-a-loaf for those who have to drop out for one reason or another at the end of two years.

Our local STWP Chapter has volunteered to help us carry the news of our programme to the surrounding secondary schools and to acquaint career counsellors with the many kinds of work available in the communication arts and crafts. Our National STWP Education Committee, of which I am a member, has proposed that the Society budget 25,000 dollars (£10,417) to be awarded in scholarships to deserving young people working toward a degree in technical communication.

### *The Prospects for Other Programmes*

At this point you may wonder why other institutions are not following suit. They are. I know of several schools

which are working on proposals for degree programmes. In my original proposal I said we needed a dozen such programmes. I predict they will come within the next ten years. All of the necessary courses are already available in most universities. The main hurdle is to find someone willing to work out the details and find interested faculties who are willing to carry it through.

Let us suppose you are jointly interested in promoting a degree programme for the education of career communicators. You might be lucky and find an institution with a strong programme already going in communication studies for engineers and scientists. This is a favourable situation because you will find faculty people in these institutions inclined to carry the ball for you. Imagine the chance a degree programme like this would have of being welcomed in the traditional English department, especially if the head of the department had been educated at Harvard or Yale. Fortunately, we had the endorsement of the dean of our College of Engineering Sciences and the welcome mat extended from the Division of Industrial Design and Technology.

### *A place to begin*

It has been a great pleasure to tell you about our experience at Arizona State University. If what I have said here has interested you in exploring the degree possibilities in the United Kingdom, I can suggest a good place to begin. From what I know of the excellent communication studies programme at the University of Wales Institute of Science and Technology in the Department of English and Liberal Studies, I am sure you would at least get a sympathetic hearing.

I should like to close with this observation: The scientific world and the man on the street do not speak the same language, and they never will. But in a democracy they must communicate with each other. The important job of work along this interface is to be done by the career communicators. One of the surest ways to keep this channel clear is to educate these workers. A standardized degree programme will identify these people and get them started earlier – certainly 10 to 20 years earlier than the most of us got started.

I should like also to thank Dr John Kirkman, Mr Sharp, Major Hockley, and others who had a hand in bringing me here. And I thank you one and all for your interest in our programme at Arizona State University.

# Effective Technical Publications – an Invaluable Business Aid

This paper by W. Paterson, Director of Publicity, Tube Investments Ltd., was presented at a Symposium and Exhibition held at P.E.R.A., Melton Mowbray, Leics., on 24th and 25th October last year.

*'What is the use of a book,' thought Alice, 'without pictures or conversations?'*

Alice in Wonderland—  
Lewis Carroll

If Alice had stepped through the looking glass into the world of industry she might have asked herself the same question. She might also have wondered why such clever people wrote such boring books, and how it was that engineers and scientists couldn't take better pictures.

After all, if you want somebody to stop what they're doing and read your story the least you can do is make it interesting. Effective literature is well written, makes intelligent use of pictures and is presented attractively. Planning print production is vital but before this can be done you must have a clear idea of what you want to say and to whom you wish to say it. A check list is helpful and for a publication on a new piece of machinery it might read as follows:

Who will be the readers – will translations be necessary?

What does the machine do?

What different types and models are available?

How is it used and what benefits will accrue from its use?

What are the physical dimensions?

How is it installed and what special facilities are needed if any?

What sort of maintenance is necessary?

What is the cost and likely deliveries?

Where can further information be obtained?

How many copies will be required – bearing in mind the expected life of the publication?

These basic questions must be answered before the real communications job can be tackled.

## PERA initiative

There has been some justifiable criticism of print sent abroad by British industry and one reason for this may be the low priority given to the subject by so many industrial firms. For

this reason I welcome the initiative that PERA has taken in organizing this conference.

## The direct approach

Some companies tend to devote more time and attention to their advertising programme than they do to their print programme. Yet a look at publicity budgets of industrial firms will show that there is often as much or more 'below the line' expenditure as there is on press advertising. And print plays an important part in industrial marketing programmes as so many firms have clearly defined markets and a shrewd idea of the number of customers and prospects for their products. The direct approach is, therefore, sensible. For instance, the company manufacturing heavy rolling mill plant could compile a complete list of possible users throughout the world. Although advertising might be needed to support the sales effort, first-class technical literature would, undoubtedly, be the keystone in this company's promotional effort.

As print is bound to play a substantial role in the marketing of a highly technical product the appearance of a publication assumes great importance. A poorly designed, badly written booklet is hardly likely to inspire confidence. A sloppy appearance is likely to mean a sloppy company. Yet I am surprised at the number of technically advanced companies who produce indifferent publications and excuse it on the grounds that it costs a lot less than their competitors' brochures. It is always possible to get something on the cheap and everyone knows that! But who wants to look cheap? Tawdry print that eventually finds its way abroad will do the company, and British industry, a grave disservice.

Well managed, technically advanced companies should adopt a style of writing and presentation which reflects the true nature of their operations. We are all concerned with communicating effectively and simply, but this means

getting your message to the right people at the right time and at the most economical cost. But the right message goes beyond a technical description of the product with supporting data. It should also help the reader to form a clear impression of the sort of company he is dealing with and well produced technical literature can do this. For example, the capital goods manufacturers depend heavily on exports of a commodity that cannot be easily demonstrated. They are dependent to a large extent on arousing interest by graphic presentation. One big problem some of them face is the appearance of the product and I fear that the industrial designer has not yet sold himself effectively to business management. But there's progress here and I am delighted to see that the Council of Industrial Design is now making awards for well-designed capital goods and this will do much to stimulate an interest in product design in the engineering industry. Unless the product is right and looks right, carefully produced brochures will have a short and unrewarding life. Assuming the product is well styled there are two things that must be done well if a publication is to stand a chance of surviving long enough to do its job. It must be written skilfully and illustrated intelligently.

## Skilled photographer

The preparation of technical literature is the domain of the engineer writer and not the advertising agency copywriter. Photography should be in the hands of a skilled industrial photographer and not the local man who spends more time at weddings than on a factory floor. Furthermore, the most effective photographs are those taken especially for the publication and not those gleaned from a record library. So many pictures of this sort have to be heavily retouched and as a result they assume an air of unreality. For instance the milling machine producing no swarf and standing in pristine splendour on a polished floor! Pictures must be credible. It is worth spending £50 on a good photograph, which will be reproduced many thousands of times and sent all over the world under the company's name. A budget for photography is an essential part of the appropriation set aside for publications. Obvious, perhaps, but this is often forgotten. There is no need for a company's print programme to be lavish and technical literature does not need to be printed

on expensive art paper and packed with high cost colour photography. Many extremely effective pieces of print are modest productions processed by offset litho. After all, tender documents and instruction manuals are often done this way. It must be stressed, however, that whatever is done should be skilfully executed whether it is a simple data sheet or an elaborate manual.

When you come to communicate with certain specialist readers, it's worth taking a close look at the relevant sector of the trade and technical press. A study of the way they present information can be very helpful. The publishers may not deserve Oscars for outstanding graphic design or brilliant writing but they have a lot of experience in the communication of technical information and the formula they adopt is worth examining. If your publication is designed to provide information in a digest form, the *format* adopted by the press may be the right one for you. After all, narrow columns are easy to scan quickly. Certain type faces aid quick reading and the leading between the lines can make all the difference between an indigestible page and one that can be absorbed without effort.

### *A job for professionals*

The most challenging problem is of course the preparation of technical information and by that I mean the first draft document. Publicity departments in industrial companies should be able to originate technical copy. The over-worked engineers of the company cannot be expected to prepare the first draft of a new brochure, for this is a job for professional writers. A key man in the industrial publicity department is the technical writer. He should be a qualified engineer who is able to understand the special problems of his company and who has the skill to write concisely and with interest. In many cases these men can be recruited from the editorial staff of technical magazines or from public relations agencies specializing in technical press work. Their contribution can be of immense value and will do much to increase the stature of the publicity department in the eyes of company management. For engineers and sales people naturally resent giving their time to a job that the publicity department should be doing for itself. And it is as well to remember that the first technical description of a product or process is the raw material from which advertising copy is prepared and exhibition material planned. You

cannot depend on the advertising agency for in most cases they have to rely on the company.

Technical literature that is specially written for overseas markets creates other problems, and another speaker is dealing with this subject. But at the risk of poaching his salmon I would like to say first a few words. Perhaps the most cogent problem is the translation job that not only needs to be done but must be done well. I am sure that you have all been amused from time to time by some of the comically written literature that finds its way into this country from abroad. And I know that you will tend to downgrade any company that sends you a brochure written in curious English and peppered with malapropisms. The effect on you is likely to be amplified if it was also an extremely badly designed brochure. The same of course is true of a foreigner receiving your printed material, and good translations are not only important for proper communications but vital if your reputation is not to suffer. The magazine *Design* produced a supplement called 'Print for Exporters' some time ago and the following is an extract:

'A Lancashire manufacturer of proofed goods (i.e. rubberized cloth) was pained to learn at a European trade fair that his leaflet described the product in Russian as "cloth with mackintoshes". It is easy to smile at the Dutch bulb grower who claims that if we plant his bulbs in the Autumn our gardens will be full of amazing bloomers in the Spring. But before laughing out loud we had better make sure that there are no bloomers in our own foreign language printing.'

Accurate, idiomatically correct translation is the aim of us all when we prepare print for export and PERA can help here. Of course there are a number of translating agencies but you would be wise to have all translations checked by some technically qualified person who is a national of the country into whose language the brochure has been written. For to go to press with a foreign text which has only one man's authority behind it is fraught with danger. It should be remembered that in 95 per cent of the world's markets, metric measurements and weights must be given instead of or in addition to British equivalents. In certain ranges of products it is desirable to include prices but this may be impracticable where the price list is meant for several countries.

In most cases it is useful to print the U.S. dollar price alongside the sterling

prices for reference. If countries with similar freight rates are grouped together the c.i.f. (cost, insurance, freight) prices will enable all overseas markets to be covered by a small number of additions to the price list. Where the exporter has a limited number of customers in a large number of countries then the f.o.b. (free on board) prices should be quoted.

In pursuit of high standards the publications manager or the executive in charge of this side of the company's business should control the preparation of all print. Many firms leave the production of export literature to their agents and restrict their contribution to providing some copy guides and illustrative material. This loosely controlled operation invariably means that the publications circulating abroad are of a very much lower standard than those produced for the home market. A better system is to make sure that the publications are designed in such a way that the foreign text can be over-printed either in this country or under supervision abroad. It is important to develop and maintain a consistent house style and this will not be possible if agents are handling the print programme independently of your marketing policy. After all a house style goes beyond just using the firm's trademark or logotype for it involves a planned approach to the typography, colour and overall graphic design.

### *Russians impressed*

At the British Industrial Exhibition in Moscow last year, my group used technical literature as a direct aid to sales and as part of a wider public relations programme. The individual companies' publications were translated into Russian and special attention was paid to the requirements of the Russian market. For instance, in addition to an appetite for technical data and performance specifications, the Russians were keen to have pictures of the products giving dimensions covering the floor area that would be occupied and the height. This information is valuable to the planning authorities, particularly where new factories are being erected and where new plant must be accommodated in a limited space. A technical newspaper was also prepared by a journalist on the company's staff in collaboration with a man from the Tass Agency and sent out to government and factory officials before the exhibition opened. It included a description of the group and its financial

resources together with articles covering the most technically advanced products to be shown at the exhibition. All the print was handled in this country and close attention was paid to the style and quality. I am pleased to say the Russians seemed to be favourably impressed.

### ***Effective distribution***

I mentioned earlier the importance of planning and during the planning phase the distribution of the publications must be very carefully considered. Too many brochures curl up with age and become buried in dust on storeroom shelves. And how often have you had to order a hasty reprint as stocks become exhausted and you need 2,000 copies for an important exhibition that was forgotten during the planning stage. Effective technical literature must be effectively distributed and this means compiling personalized mailing lists which are constantly revised and up-dated and making full use of the distribution machinery offered by the C.O.I. At present the Central Office of Information is distributing overseas some 200,000 copies a year of about 400 different publications produced by industry including

wallsheets and calendars. The C.O.I. leaflet, 'Worldwide Export Publicity Service', gives information on the distribution of industries' publications. They are used widely for display at trade fairs, conferences and exhibitions and are distributed to the press and to individuals and organizations interested in buying British goods. Before finalizing your print order, check with the C.O.I., who will want to see a proof of the booklet before telling you how many they will need for distribution.

It is surprising how often the company's sales staff are overlooked and if it is impracticable to send a proof of the booklet to sales people before publication, then a synopsis should be circulated with a request for the number of copies they are likely to want for distribution in their sales area.

### ***Need for research***

A company manufacturing package and bulk conveying plant diverted a substantial part of the press advertising budget to the production of a quarterly technical news bulletin for customers and prospects. The regular flow of inquiries that resulted outstripped the response from the advertising programme which previously had carried

the full load. Simple technical bulletins properly distributed on a personalized basis are an effective way of keeping selected audiences informed about a company's technical developments and effectively supplement the advertising programme. Most firms need to do more research if they are to be able to define clearly the customers for their products and avoid the random distribution of information that is so wasteful. The compilation of mailing lists is an irksome task and takes time but the rewards of the direct approach are substantial and should be the aim of all companies manufacturing specialist plant. Experience has shown that response is greatly increased if the reader can get more information with the minimum effort. Reply-paid cards can largely overcome reader inertia! In my own organization the distribution of technical literature is increasing daily and the large numbers involved have resulted in mailing lists being computerized.

I leave you with a thought supplied by Alexander Pope:

*'True ease in writing comes from art,  
not chance,  
As those move easiest who have learn'd  
to dance'.*

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## **Tax relief allowed on subscriptions to the Institute**

Members will be able to claim income tax relief for subscriptions paid to the Institute of Technical Publicity and Publications as from the fiscal year 1965/66. The news was contained in a letter to the Institute from Hogg, Bullimore, Gundry & Co., chartered accountants. The full text of the letter sent to the accountants by the Inland Revenue is as follows.

Dear Sir,

I have to inform you that the Commissioners of Inland Revenue have approved Institute of Technical Publicity and Publications Ltd. for the purposes of Section 16, Finance Act, 1958, and that the whole of the annual subscription paid by a member who qualifies for relief under that Section will be allowable as a deduction from his emoluments assessable to income tax under Schedule E. If any material relevant change in the circumstances of the society should occur in the future you are requested to notify this office.

I should be glad if you would inform your members as soon as possible of the approval of the society. The circumstances and manner in which they may make claims to income tax relief are described in the following paragraphs, the substance of which you may care to pass on to your members.

Commencing with the year to 5 April 1966, a member who is assessable to income tax under Schedule E in respect of the emoluments of an office or employment is entitled to a deduction from those emoluments of the whole of the annual subscription which is due and payable by him to the society in the income tax year provided that

(a) the subscription is defrayed out of the emoluments of the office or employment, and

(b) the activities of the society so far as they are directed to all or any of the following objects:

(I) the advancement or spreading of knowledge (whether generally or

among persons belonging to the same or similar professions or occupying the same or similar positions);

(II) the maintenance or improvement of standards of conduct and competence among the members of any profession;

(III) the indemnification or protection of members of any profession against claims in respect of liabilities incurred by them in the exercise of their profession;

are relevant to the office or employment, that is to say, the performance of duties of the office or employment is directly affected by the knowledge concerned or involves the exercise of the profession concerned.

A member of the society who is entitled to the relief should apply to his tax office as soon as possible for form P358 on which to make a claim for the relief due to him.

Yours faithfully,

A. B. Scott,  
Principal Inspector of Taxes,  
Inland Revenue,  
New Wing, Somerset House,  
London, W.C.2



# News and Events

## *Institute meetings – 1968/69 Session*

As a further step towards closer co-operation between the kindred bodies, ordinary meetings will, in future, be held under the auspices of the Joint Council for Scientific and Technical Information, although arranged and organised by the individual societies. A full calendar of meetings and visits in the London area will be published in October, and we hope to give details for the rest of the U.K. in the near future. The meetings in London have been arranged for every other Wednesday, though the titles and speakers for some of the dates at the end of the session have still to be agreed.

For the information of new members and others, the constituent bodies of the Joint Council are: the Presentation of Technical Information Group (PTI); the Institution of Technical Authors and Illustrators (ITAI) (lately the Technical Publications Association, TPA); and, of course, The Institute of Technical Publicity and Publications (ITPP).

The first three London meetings are shown below. Short reports on each paper will be available soon after the meeting for those unable to attend, but we hope you will make an effort to support the speaker on the night. Visitors – in fact anyone interested – will be welcome.

Wednesday, October 16, 1968, at 6.30 p.m. Subject: 'Wider Uses of the Teleprinter'. Speaker: J. V. Adams, Creed & Company Ltd. Place: Faculty of Engineering, University College, London, Torrington Place, London, W.C.1. (LT Stn. Euston Square).

Wednesday, October 30, 1968, at 6.30 p.m. Subject: 'Microfilming of Technical Material'. Speaker: D. C. Harper, Marconi Company Ltd. Place: Faculty of Engineering, University College, London.

Wednesday, November 13, 1968, at 6.30 p.m. Subject: 'Aspects of Automated Information Dissemination'. Speaker: G. R. Cutts, MITPP, and others. Place: Faculty of Engineering, University College London.

## *SEE meeting*

A further note for those involved with specs. The SEE (Society of Environmental Engineers), is holding a meeting in March next year on the subject of Environmental Test Specifications; details from Mrs. P. Millard, Secretary, Society of Environmental Engineers, 68a Wigmore Street, London, W.1, telephone 01-486 1853.

## *STWP symposium in Israel*

The STWP (The Society of Technical Writers and Publishers of USA), has organised an international symposium to take place in Tel-Aviv in December next. Travel and accommodation are being arranged by Messrs. Thomas Cook, 45 Berkeley Street, London, W.1, at reasonable rates. Details of the symposium are available from the U.K. organiser, Mr. E. N. White, A.W. Publications Ltd., 29-30 Ely Place, London, E.C.1.

## *Conference at AERE, Harwell*

A one-day conference on Visual Communication of Scientific and Technical Information, organised by the Society of Industrial Artists and Designers, is being held at AERE, Harwell, on Saturday, October 12, 1968. Unfortunately it is now too late to enrol, but we hope to publish a report on the proceedings in a later issue. Our Hon. Secretary is presenting a paper and will, we hope, tell us about the whole conference.

## *ITPP exhibition and symposium*

Preliminary planning has begun for a two- or three-day exhibition and symposium to be arranged by The Institute for the autumn of 1970. Any suggestions or ideas should be sent to the Hon. Secretary for passing on to the sub-committee responsible. It is hoped to obtain the services of speakers from abroad as well as from the U.K. Details will be published from time to time in these columns, but as such events need planning well in advance, early support will be especially useful.

## *Views on art education*

The National Advisory Council on Art Education (Coldstream Council) is asking for views on art education. Although we defer to others more competent on all aspects of the fine arts, we are nonetheless deeply concerned with anything that affects the training of illustrators. This aspect of 'Art' should not be overlooked, and we are therefore appealing to all members for their views on this important subject. The Institute will collect and collate these views and present a consolidated case to the committee.

## *DIN specifications*

The 1968 list of English Translations of German Standards (DIN) is now available from Deutscher Normenausschuss (DNA), 1 Berlin 30, Burggrafenstrasse 4-7 Germany.

## *British Standards*

Revision of BS 2509, *Presentation of Periodicals*, has been circulated for comment and is now in an advanced stage of preparation. The Institute is well represented on the sub-committee carrying out this revision and it is felt that the changes made will be welcome to both editors and users. It should be noted that the title of this standard may be changed in the final issue.

## *ASTM specifications*

For those interested in engineering specifications, ASTM (The American Society for Testing Materials) has issued its 1968 books of standards in 32 separate parts. A leaflet listing them all can be obtained from Heydon & Son, Spectrum House, Alderton Crescent, London, N.W.4.

## *PERA conference*

A conference under the title, 'Profitable Industrial Advertising', is being held at PERA on November 19 and 20 next. Details and reservation forms from PERA, Melton Mowbray, Leicestershire. Telephone Melton Mowbray 4133 (STD 0664-4133).

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# Education and Training

Many people, realising the ever-growing need for more professionals and more professionalism in all fields of human communication, have been putting great effort into persuading educational establishments to take an interest in their subjects. A number of courses started as a result of these efforts have foundered through lack of student support. At the same time we have been approached by members who have not been able to locate a suitable course for themselves or their staff.

In an endeavour to overcome some of these difficulties, *The Communicator* will publish in each issue details of some of the facilities that exist, or are proposed, throughout the country. **To make this really worthwhile we shall need the co-operation of our readers.** We therefore ask anyone who has knowledge of a relevant course, at any level, to inform the Editor.

Although this first issue will be too late for the 1968/69 session at most educational establishments, it is hoped that by this time next year a comprehensive list will be available, and that no one desiring instruction will be forced to forego it. We would also like

to hear from potential students who find difficulty in finding a place. It may be possible to persuade local colleges to take more interest when we know of the extent of the demand.

Some universities and CATs are contemplating starting degree courses with communication as a subsidiary subject, or even as the main subject. Details will be published as soon as they are known. The ITAI (Institution of Technical Authors and Illustrators) have already issued a list of courses for the City and Guilds examinations for the 1968/69 session. For copies of this list contact Mrs. E. Parkinson, Secretary, ITAI, 17 Bluebridge Avenue, Brookmans Park, Hatfield, Hertfordshire. Telephone 77-55392.

Information that has been received up to the time of going to press with this issue is given as follows:

St. Albans College of Further Education, Hatfield Road, St. Albans, Hertfordshire. Telephone: St. Albans 60423. Evening courses for C. & G. Technical Writing and Technical Authorship are held subject to enough students enrolling.

Kingston College of Further Educa-

tion, Department of Business Studies, Grove Crescent Annexe, 12 Grove Crescent, Kingston-upon-Thames. Telephone: 01-546 0988. Evening courses for C. & G. Technical Writing and Technical Authorship.

South East London College of Technology, Mechanical Engineering Dept., Lewisham Way, London, S.E.4. Telephone: 01-692 7296. This college is wishing to start evening classes in subjects of Technical Writing and Technical Authorship if the need is made evident. It seems to be the only one within the Inner London Education Authority area.

Hatfield College of Technology, National Reprographic Centre for Documentation, Hatfield, Hertfordshire. This centre is holding a number of one-day and one-week courses and seminars in such subjects as Microfilm Introduction, Microfilm Application, Document Reproduction, etc. Some of these, if not all, have been arranged with the Technical Publications Manager or communications specialist in mind. Details can be obtained from the Director.

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## Thoughts into words

by T. D. Harry

A recent survey amongst engineers to find out how they spent their time showed the following: 9% writing, 16% reading, 35% speaking, 40% listening.

Some interesting conclusions arise from these figures. For instance an engineer earning £2000 per year earns £900 of it sitting around listening to other people talking! But the main point is that all these activities are acts of communication and if you add up the figures you will find that they total 100. In other words, these engineers spend all their professional life communicating. They are truly professional communicators; but how many of them ever received any formal training in communication? Probably none of them, unless they have recently

attended a course of management training, in which case they may have been given a few hours' instruction on writing letters and speaking to groups.

If we define communication as the transfer and sharing of thoughts between two or more people, we must face the fact that the most effective form of communication, even for highly technical subjects, is two people talking together. The use of drawings, illustrations and written words is only secondary to the spoken word.

Therefore I suggest that we in the I.T.P.P. should devote more attention than hitherto to spoken forms of communication. This means not only public speaking, but addressing small groups, holding meetings, providing

verbal reports, how to influence others and even how to sell.

In case anyone thinks that technical education includes communication because we are all taught to read and write, let me add that these are basic mechanical activities, essential to communication, but they are not in themselves acts of communication.

I believe that communication is an intellectual activity and that we should look upon words as means to an end, not ends in themselves. Nine out of ten 'after dinner' speakers illustrate this very well. So do many teachers who appear to believe that teaching is the passage of notes between lecturer and student without the subject matter passing through the minds of either.

# Communicator's Bookshelf

What would you suggest as a basic library of reference books for the office of a communications organisation? Our investigations show that no two people would give the same list, and, what is more significant, many senior men are unaware of the existence of some of the more important and useful books.

Although we shall be reviewing new titles from time to time, we feel that the first step is to produce a basic list of books that have been found useful to those practising. If you know of a book, text or reference, that has been of help to you or your staff, please let us know the details.

We are starting this exercise by publishing, by kind permission of the City and Guilds of London Institute, their list for the Technical Authorship examination (CGLI 229). Accepting this as our first list, we shall amend and add to it in subsequent issues of *The Communicator* in the light of information received from readers.

The City and Guilds points out with reference to the list that their examination questions are not set on any specified books; the following list does not claim to be exhaustive, and is merely intended for the information and convenience of those who are interested in the subjects. Books which are out of print owing to the present difficulties may be consulted in many libraries available for the use of students and teachers.

## English and Writing Technique

*The Complete Plain Words*, by Sir E. Gowers, (H.M.S.O.).

*Good English – How to write it*, by G. H. Vallins, (Pan Book).

*Better English*, by G. H. Vallins, (Pan Book).

*English and Commercial Correspondence*, by Carrad, (Pitmans).

*Presentation of Technical Information*, by Kapp, (Constable).

*Technical Literature – Its Preparation and Presentation*, by G. E. Williams, (Allen & Unwin).

*Write what you mean*, by R. W. Bell, (Allen & Unwin).

*The Reader over your Shoulder*, by Robert Graves and Alan Hodge, (Cape).

*Style*, by F. L. Lucas, (Cassell, 1955).

*Our Living Language, a Guide to*

*English Grammar*, by P. Gurrey, (Nelson, 1946).

*How to Write*, by Stephen Leacock, (John Lane).

*The Technical Writer*, by J. W. Godfrey and G. Parr, (Chapman & Hall).

## Report Writing

*Technical Writing*, by G. H. Mills and J. A. Walter, (Rinehart, 1954).

*Scientific Writing*, by M. R. Emberger and M. R. Hall, (Harcourt Bruce, 1955).

## Publications Technique

*Notes and References*, by P. G. Burbidge, (Cambridge University Press).

*Making an Index*, by G. V. Carey, (Cambridge University Press).

*Technical Publications*, by J. C. Y. Baker, (Chapman & Hall).

*Alphabetical Arrangement B.S. 1749: 1951*, (British Standards Institution).

*Bibliographical References B.S. 1629: 1950*, (B.S.I.).

*Book Sizes and Dating of Books B.S. 1413: 1947*, (B.S.I.).

*Folders and Files B.S. 1467: 1946*, (B.S.I.).

*Layout of Periodicals: A Guide for Editors and Publishers B.S. 2509: 1954*, (B.S.I.).

*Letter Symbols, Signs and Abbreviations B.S. 1991: 1954*, (B.S.I.).

## Printing and Typography

*Five Hundred Years of Printing*, by S. H. Steinberg, (Penguin Books).

*The Process Engravers' Compendium*, (Process Engravers' Federation).

*Introduction to Typography*, by Oliver Simon, (Penguin Books).

*Printers' and Authors' Proof Corrections B.S. 1219: 1945*, (British Standards Institution).

## Books of Reference

*Concise Oxford Dictionary of Current English*, by Fowler & Fowler, (Oxford, Clarendon Press).

*A Dictionary of Modern English Usage*, by Fowler, (Oxford, Clarendon Press).

*Dictionary of Modern American Usage*, by H. W. Horwill, (Oxford, Clarendon Press).

*Usage and Abuse*, by Eric Partridge, (Hamish Hamilton).

*Printers' and Authors' Dictionary*, (Collins).

*Law of the Press*, by Dawson (Staples Press).

*Chambers' Technical Dictionary*, by Tweney & Hughes, (R. W. Chambers).

*An Explaining and Pronouncing Dictionary of Scientific and Technical Works*, by W. E. Flood and Michael West, (Longmans).

*Practical Printing and Bookbinding*, by H. Whetton, (Odhams Press Ltd.).

*Information Processing Equipment*, by M. P. Doss, (Reinhold Publ. Co., New York).

Glossaries of Technical Terms published by the Standards Institution, such as: *Glossary of Aeronautical Terms*, No. 185, Parts 1, 2 and 3. *Glossary of Terms used in Electrical Engineering B.S. 205: 1943*. *Glossary of Terms used in Telecommunications B.S. 204: 1943*. *Manufacturers' Trade and Technical Literature B.S. 1311: 1955*. The Recognised Engineering and Technical Reference Books.

## Seen & Heard

How important is accuracy in *your* handbooks? The report of the public enquiry into the Argonaut air disaster at Stockport in June last year, (*The Times*, August 22, 1968), produced among its major findings a statement that, 'failures of communication . . . caused the Stockport crash. . .'. It seems that the information that could have averted the disaster was available but it did not reach those who needed to know. The Flight Manual did not include a warning on the possible mispositioning of the fuel cocks.

\* \* \*

On the subject of the quality of a handbook, a note by 'The Scribe' in the *Autocar* early this year is interesting. 'A hire car firm which bought 200 Fiats lost 10000 handbooks during the model's term of service. I have seen Fiat handbooks. They are good ones. They contain no low jokes or pin-up pictures, however, and they are not bound in hand-tooled Russian leather with gilt-edged pages'.

Does this indicate a new method of measurement of quality in quantitative terms? What could the units be named?

# Letters to the Editor

Sir,

I note from *bulletin* no. 9 that the Institute is a member of the British Standards Institution. Recently there was discussion in electronics magazines concerning continental type symbols for resistors and transformers, neither very attractive for British use. No doubt their use, especially internationally, is defensible, but should not their defence appear in the *bulletin*, if some symbol expert would kindly oblige?

More difficult to defend, in my opinion, is the peculiar use of Hertz in the expression 'a frequency of 100 MHz', meaning 100 Mc/s. I submit

that wide acceptance of such an expression will be a real setback to one of our professional aims – to reduce the jargon content of technical literature.

How has a Hertz been defined? Is it simply synonymous with a cycle per second? In which case, I cannot see how a 'cycle per second' can be faulted. Then what about r.p.m.? If my car engine is running at 6,000 r.p.m., is it running at 100 Hertz? Does the earth rotate at 0.000,012 Hertz? All we are trying to do is remember Hertz the man. What better than to encourage the use of the term Hertzian waves with regard to wireless transmission? For, after all, we still do not know what Hertzian waves actually consist of (if anything),

the phrase 'electromagnetic energy travelling through space' being a bit jargon-like itself.

Now not everyone may share my views. But it occurs to me that members of the Institute might like to co-operate in an opinion poll on this and suchlike matters. Let Council state and perhaps discuss proposed standards in the *bulletin* and ask for opinions (some of which could also be published). Receipt of a wide range of opinion would enable Council truly to say 'in the opinion of the Institute . . .'

R. B. Newton (Associate Member)

*More opinions from readers, please.*  
Ed.

## Processes and Equipment

### *New graphic arts system for line and halftone prints*

A new system for producing line and screened halftone prints in only 15 seconds, without a darkroom, has been announced by Polaroid (U.K.) Ltd.

The system produces a 4" by 5" (9 by 12 cm) screened or line-copy print at a fraction of the cost and time required to produce conventional negatives. The prints are 'camera ready' and may be pasted directly into a mechanical. The entire mechanical, incorporating both line and halftone artwork, may then be photographed as line copy with a standard process camera to make a negative from which a metal offset litho plate can be sensitised. It may also be used directly to make a paper master.

The Polaroid graphic arts system eliminates the need to make separate negatives of line and continuous-tone materials which must be stripped together before sensitising the offset plate.

The system is invaluable where large quantities of line or continuous-tone artwork and lettering must be reproduced to a specific scale with speed and precision for the preparation or reproduction of catalogues, layouts, advertisements, sketches, tables and

graphs, book illustrations, antique lettering or fancy initials, drawings to scale and new designs.

It is particularly advantageous to in-plant art departments, smaller publishers and even advertisement agencies which are now unable to produce their own halftones or scaled line artwork because of the prohibitive cost of a process camera or the amount of time required to produce and strip conventional negatives.

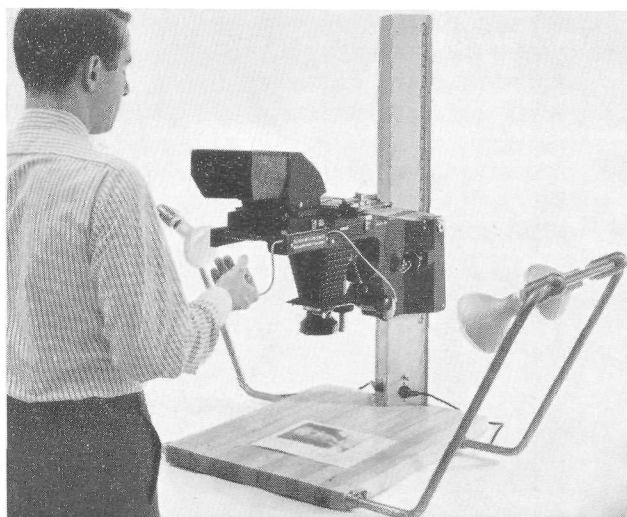
In addition to its speed, the system provides the added assurance that prints are properly cropped and cor-

rectly positioned in the mechanical before it is turned over to the printer.

The system is designed for use with the Polaroid MP-3 industrial view camera, and includes a new ultra high-contrast self-developing graphic arts film, a selection of glass optical screens, and a special aperture control for the camera.

The MP-3 camera is a completely self-contained unit consisting of a column-mounted camera head on a baseboard. The camera head moves up and down the calibrated column to

**(continued next page)**



A graphic arts technician uses the Polaroid graphic arts system to make 4" x 5" screened photograph in 15 seconds, without a darkroom.

permit easy and accurate sizing of prints within the 4" by 5" format. Uniform lighting is provided by four reflector floodlamps pre-directed at the baseboard. The new graphic arts film is known as Polaroid Type 51 high contrast land film. It has a daylight speed rating of 300 ASA (26 DIN) and produces a completely developed positive print – without a darkroom – in only 15 seconds.

Once the user has sized and focused the image on the MP-3's ground glass, he simply inserts a single-shot packet of Type 51 film into a film holder on the camera head, makes his exposure, and withdraws the packet. After 15 seconds, the packet is peeled apart to obtain the finished ultra high-contrast print. Development takes place within the packet. Type 51 film is sensitive to blue light only, and has contrast characteristics similar to those of the finest wet process high contrast negative films available commercially, state Polaroid (U.K.) Ltd.

When used with the MP-3 camera for line reproduction, the film will produce fast, precisely-scaled copies of original line artwork in solid black and clear white, with no intermediate grey tones. If the original has insufficient

contrast, the contrast can be enhanced by copying, or re-copying several times if necessary, on to Type 51 film. Additionally, the film may be used to make high-contrast reproductions of suitable continuous-tone photographs or artwork in situations where it is desirable to reproduce the intermediate grey tones to dramatise a scene or achieve a special effect. At each copying stage, more of the intermediate grey tones are eliminated until a graphic presentation in exclusively black and white remains.

When reproductions of simple artwork or lettering are required in formats larger than the 4" by 5" size of the Type 51 print, they are produced by joining two or more of the prints together in the mechanical. Also, with the three standard interchangeable lenses available for the MP-3 camera (from 35 mm to 127 mm), the reproduction scale can be varied continuously from extreme reductions of large artwork to magnifications of as much as 10:1.

Although sensitive to blue light only, Type 51 film can also be used to make high-contrast copies of originals which contain colour by first copying the original on panchromatic film (such as

Polaroid Type 52 film, which develops a finished print in 10 seconds) using an appropriate colour filter, and then re-copying this print on to the high-contrast Type 51 film.

Halftones made with the new Polaroid land film are also developed in seconds and ready for immediate paste-up in the mechanical.

Four different glass optical screens are available for use with Type 51 film for halftone reproduction of continuous-tone originals. The screens provide halftone resolutions of 65, 85, 100 and 120-lines per inch and fit into the MP-3 camera directly below the film holder and the film plane. The special aperture control fits over the MP-3 camera's 127 mm Rodenstock-Ysaron lens in the same manner as a lens shade. It extends the capability of the f/4.7 four-element lens to f/90, which is necessary for repeatable exposure accuracy, and for 'flash' exposures required in producing halftone prints. For added exposure control, all f/stops between f/22 and f/90 are divided into thirds.

*For further details write direct to Polaroid (U.K.) Ltd., Rosanne House, Welwyn Garden City, Hertfordshire.*

## PLEASE ADVISE

A technical publications executive, victim of one of those take-over things, is wanting advice on his next step on the ladder to the top.

His knowledge, experience and ability span most of the streams of technical communication. As a manager, he has proved that he can build and run an efficient and viable organisation.

Being disenchanted with the mindlessness of over-big business, should he become a consultant? or join a medium-sized manufacturing company? or perhaps join one of the better firms specialising in technical communication?

In any one of these he would be an asset as he would bring with him a breadth of understanding of both the problems and their solutions. He appreciates the value of good communication in any of its forms, and he also knows the cost of bad!

Or would you suggest an entirely different line of approach? Abroad?

PLEASE ADVISE . . .

Send any useful suggestions to  
Box 1001, 'The Communicator', The Institute of Technical  
Publicity & Publications, c/o Coventry College of Art,  
Gosford Street, Coventry.

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