Time and information overload as variables in organisational communication

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Abstract

In the field of organisational communication much emphasis is placed on the verbal aspects of human communication. A consideration of the literature shows scant attention is being paid to non-verbal aspects. Time as a single non-verbal variable, however, is given even less attention. This is remarkable when developments in the field of information processing through computerized technology is considered. In this paper the importance of time considered against the backdrop of ever increasing technological change and information overload, is discussed. It will be argued that much more research should be done to place the time variable in true perspective within the field or organisational communication.

All human activity, including communication behaviour in organisations, can be fixed at a particular point in time (Block, 1979). A consideration of the literature of organisational communication, however, shows that time, as a single non-verbal communication variable, has received scant recognition in both research and theoretical works (see for instance Brown, 1982; Margulies & Raia, 1978; Sussman & Krivonos, 1979; also Table 1). This is remarkable when the following aspects are considered:

As part of the spatio-temporal codes of communication, Western man in modern, urban, and industrial society must continually mesh his daily activities within a time frame with the activities of others (Harrison, 1974 : 154). Throughout his total work and leisure life, man is concerned with time. He has to wake up at a certain time, eat and go to work at a certain time, and complete work assignments within specified time limits. The one variable consistently present in any situation whenever man works or plays, is that of time.

With the basic premise then that time plays an active role in any communication situation, two factors concerning time within an organisational framework are discussed in this paper.

- In the first instance, time is considered as a variable by means of which man communicates and thus conveys meaning.

- Secondly, time is shown to be an extremely vital factor when man's capabilities for communication in-and output is considered against the backdrop of new developments in the field of information processing through computerized technology. We live in an age in which technological innovations and progress have revolutionalized the communication process (Toffler, 1977). Modern man is confronted with vast amounts of information, which cause communication overload in many instances. We still have to seek answers on how to cope with this tidal flood of information (Toffler, 1977) within our concept of time and our human capabilities of utilizing this particular variable in organisational situations.

Consideration of the literature

For the purpose of this paper a total of 40 basic and related works in the field of organisational communication (see Table 1 for authors) were reviewed. It was found that very little attention was given to time. In a recent study to determine the topics relevant to organisational commucatation, Rogers (1978) identified several perspectives, such as listening, information and non-verbal communication, but time as a single communication variable, was not listed (see Table 2).

Sociologists, like Sorokin and Berger (Block, 1979 : 37), on the other hand, clearly outlined almost four decades ago that time plays a vital part in modern industrial life and that in all organisational situations questions like the following should be asked:
- What kinds of activities occupy the individual's twenty-four hours?
- How often is each activity repeated during the twenty-four hours?
- How much time does each activity take?
- What are the individual motives for each activity?
- How accurately can an individual predict his behavior in terms of time?

When current problems surrounding communication flow and overflow are considered, the following questions might be added to the above-mentioned.
- How do people cope with vast amounts of information within a specific time period?
- Does the free flow of communication within a particular time cycle facilitate understanding of messages and the motivation of workers?
- What will the future effect of continued technological developments be on human communication capabilities?

The following discussion of time as a communication variable might illuminate some of these questions.

Time as a non-verbal communication variable

In its broadest sense, non-verbal communication includes all forms of transmission of meaning, except that which is expressed in oral or

written words (Treece, 1978). According to Ruesch and Kees (1970), all forms of communication are to be found in three forms: sound language (e.g. codification in which words, numbers and punctuation have been supplanted by gestures), action language (all movements that are not used exclusively as signals), and object language (all intentional and unintentional display of material things). Time should be seen as being both action and object language while the study of how human beings communicate through their use of time could be labelled as chronemics (Tubbs & Moss, 1980 : 173).

How do we use time in communication situations, and, more specifically, in organisational situations? Two aspects will be considered: time as conveyor of meaning and time as an organisational frame of processing communication messages.

Time as conveyor of meaning

If one agrees with the basic assumption that communication is the sharing and/or creation of meaning within a social context (Marais, 1979), then the importance of time in the transmission of meaning in any communication situation can never be under-estimated. In this connection, Hall (1959 : 23) states:

> Time talks. It speaks more plainly than words. The message that it conveys comes through loud and clear. Because it is manipulated less consciously, it is subject to less distortion than the spoken language. It can shout the ' truth where words lie.

People are always aware of time and are prone to regulate their lives according to it:

> Most are awakened by an alarm at a specific time, measure their rate of progress in the morning traffic rush by the frequent time checks provided on the car radio, and announce their arrival at work by inserting their time cards into a timeclock that, in turn, prints their arrival time on the card while greeting them with an appreciative click (Huseman; Lahiff & Hatfield, 1976 : 73).

The following are examples of time usages in organisations and meanings derived thereof:

- Against the background of his classification of different uses of time (see 5.1) Hall (1959) states that an employee's punctuality (and therefore his potentiality as a reliable worker) is likely to be revealed by his usage of either informal, formal or technical time. In this instance time and reliability — and ability — are connected.

- Punctuality can also be influenced by the perceived status of fellow employees. For example: an individual will be more punctual with a boss than with co-workers. In this sense punctuality is connected with either respect or fear.

- Time and status: The time a person is kept waiting when seeing a more senior person, can be an indication of the former's status in

62

the company. The greater the status of the employees, the more is their abuse of others' time (Koehler, Anatol & Applbaum, 1976). In the same sense a manager may be late for a meeting, but an employee who arrives late, may be reprimanded.

- The amount of time spent in the presence of the employer can also be an indication of the employee's position and rank in the organisation: he will be perceived as being of high status when he is more in the presense of the employer than with his colleagues.

- Time can also be an indication of power: people with busy schedules are often seen as more important or more powerful. Also, the time given by important people to others is an indication of the power/importance of the latter (Sussman and Krivonos, 1979).

- The arrival time at office might also have communication significance. Sussman & Krivonos (1979) refer to an experiment in which the time job applicants arrived for an interview, was manipulated. The applicants arrived either 15 minutes early, 15 minutes late or on time. Those who were punctual were perceived as most sociable and composed, those 15 minutes too early were seen as the least dynamic and those 15 minutes late were perceived as the least competent.

In this part of the discussion we have outlined some of the effects of time as conveyor of meaning. Let us now turn to time as an organisational variable.

Time as an organisational variable

Although very little attention has so far been given to the study of time as a variable in organisational communication, it is commonly known that the time factor in any business situation is of vital interest. In the business world time is viewed as a factor that might be manipulated as packaged — it may be saved or wasted. Within the organisation everything revolves around time: time clocks are punched, meetings are scheduled, appointments are made on a specific time of the day, arguments centre over 30 to 40-hour work weeks and salaries are paid either on a daily, weekly or monthly basis. Even leisure time in the organisation is planned according to a time table, e.g. coffee breaks, lunches and vacations are taken on preset times.

Apart from the mentioned indications of time, employers also tend to interpret employees' proficiency in relation to their ability to complete a certain job within a specified period of time and the attitudes of employees are inferred by their promptness or tardiness.

In order to elaborate on this point, we can distinguish between different uses of time in an organisation.

Formal, technical and informal use of time

Hall (1959) distinguishes between formal, technical and informal uses of time.

- Formal time is measured by means of the clock or the calender, when, for example, the manager tells an employee to have the job done by Monday the 11th at noon.

- Technical time is more precise. For example, the time of a solar year is 365 days, 5 hours, 48 minutes and 45,51 seconds.

- The informal usage of time refers to "in a few days", "later" or even "eventually".

Time as an economic variable

Time as an economic or even marketing variable has largely been ignored thus far. As Schary (1971) has pointed out, far more is known about how consumers spend their money, than how they spend their time.

In examining economic growth, Linder (1970) divides time in relation to man in five groups:

- Working time which has an impact on both the supply and the demand of time allocated to other activities. Toffler (1977) estimates that an average person devotes approximately 25 percent of his time to his work. It is, therefore, logical that economists should consider time as a scarce resource — hence the saying "time is money".

- The second category of time is personal time. This can be divided into maintenance of goods or to one's body.

- Consumption time is the third category. This means consumption of time allocated to the consumption of goods. As product activity increases, so does the demand for consumption time increase. This fact becomes more relevant if one considers the new technological advances of this age (see later).

- The fourth category of time is devoted to the cultivation of mind and spirit.

- And the last category is leisure or free time.

With the above-mentioned categories of time in mind, let us now turn to a specific problem in organisational communication, namely the effect of information overflow within a particular time pattern.

Information overflow in the organisation

In the last two decades of this century the world has been speeding towards a new society with unknown technological communication changes (Toffler, 1980). According to the prophets of the late twentieth century this era will be known as the "information" or "knowledge" society (Freidson, 1973; Mok, 1973).

The purpose of this paper is not to discuss the latest progress in information flow. It is, however, appropriate to look at certain develop-

ments in the field with reference to time-allocation and information-flow.

According to Toffler (1977) modern man is in a state of future shock due to the shattering stress and disorientation that is induced in individuals by subjecting them to too much change and information in too short a time. This situation is enlarged by what Toffler (1980) calls the Third Wave — the high speed technological and information revolution that is striking at modern man. (The First Wave being the Agricultural Revolution, and the Second Wave the Industrial Revolution.) Electronic and technological progress is changing the whole process of information flow. Let us briefly look at the range of this information revolution.

Telecommunication progress. Highly reliable and extremely powerful integrated circuits (chips) are responsible for phenomenal developments in semi-conductor technology (Rive, 1979).

● One channel on a telecommunication satellite can handle 100 000 calls simultaneously.

● Through systems such as Videotext and Ceefax people with access to cable television and home-linked satellites will be able to have almost unlimited options of different news and information sources at the touch of the keyboard next to their television receiver (Williams, 1981).

Developments of computers. Information processing in the field of computers amounts to almost astounding proportions (De Beer, 1982). Computers have three extremely important features: they are small, cheap and have a capacity and sophistication that are almost impossible to equal.

In contrast with the first enormous electronic computer of 1946 which took relatively long for a calculation, new pocket-sized computers like the new IBM 64K work in pico-seconds (Clarke, 1981). The relation between a pico-second and a second is the same as the relation between a second and almost 32 000 years! Computers are also getting less expensive: 30 years ago it would have cost R1 to do 100 000 calculations, today it is done for less than half a sent. According to Clarke's (1981) future calculations a home computer will cost less than a washing machine.

The significance of an information society has been expanded by many futurologists. Parker and Porat (1975) divided the United States labour force between an information sector and all other sectors. They found that the information sector employed only 10% of this labour force in 1900; 27% in 1960 and 48% in 1970. Their predicted calculation in 1975 for 1980 was 51%.

The question is, how competent are we to survive this information revolution? And are we equipped to handle information overflow within certain time units in organisational situations?

Man can deal with only a limited amount of information at a time. It has already been found that the human mind cannot respond to more than nine different stimuli per second. This amount is further reduced to five different stimuli per second when discrimination is required (Koehler, et al, 1976). In the case of messages containing difficult material, there is evidence that people are able to monitor only four or five features. At slight increases in the difficulty of material the rate of presentation affects the capacity to perceive communication stimuli.

Message and/or information overload will continue to create problems for the receiver. According to Sussman & Krivonos (1979), there are certain basic ways in which people respond to communication overload within certain time frames.

- Ommission: to simply ignore some information.
- Error: to make or fail to correct errors.
- Queing: to pile things up.
- Priority rules: for down-grading or ignoring priority messages.
- Approximation: the lowering of standards of precision. "Instead of doing our very best, we will try just to get by."
- Delegation: to shift the overload to other people.
- Escape: simply avoiding the overload entirely and to refuse to handle the information: "Hell, I've got too much work to do today. Let's go out for a drink!" (Sussman and Krivonos, 1979 : 55).

But, before we do that, let's have a look at the future.

Possible changes in the organisation due to technological change

With technological improvements on the one hand and a rapidly increasing information flow on the other, certain changes in the organisation are likely to occur:

- There will be more time available which could either help or retard the information-flow. For example, with lightning speed, computers can manipulate figures and print reports much faster than 1 000 lines per minute. More important, business's capacity to prepare reports will exceed the ability of managers to absorb them (Swindle, 1980). Managers will have to take a close look at what is known as "memo mania" (the compulsion to write a memo at every conceivable moment). With modern media available, workers will be flooded with information which could grind the organisation to a halt.

- The whole technological world of word processing, computer graphics, videotext and teletext, interactive cable, electronic mail and communications satellites will increase the word power of organisations to such an extent that a whole new concept of internal communication will be needed (Williams, 1982 : 17).

A major shift in theoretical thinking about the free flow of information will have to occur. There still seems to be a rather widely held notion "that for organisations to function effectively, information must flow freely and restricted upward, downward and across (Read, 1976 : 49). Communication in organisations will have to be more planned, organised and selective, even to the extent of minimizing channels usually open for communication flow.

These are only two of the disadvantages of time consumption and the effect of technological developments. What about the advantages? In terms of time and technological change the following could occur according to Forney (1982 : 23):

- Instant contact, rather than the present cumbersome, time-consuming production process from typewriter, to printer, to mailroom, to desk will bring new challenges to the sender in the communication situation.

- Organisations will have greater message flexibility, which will allow information to be tailored automatically to different levels and types of employees.

- Instant file and retrieval, which will provide ready access to past information at the touch of a key, will change the present concept of internal communication.

- Interactivity, offering users the opportunity to get the information they want, in the form and detail they want, and to ask for further clarification if they so desire.

Conclusion

These are but some brief ideas on the effect of time and information overload in the organisational communication situation viewed against the backdrop of the technological revolution. We will have to counter these problems on an abstract as well as on a very practical level. No one will be saved from doing this, not even company presidents or board chairmen, as Toffler (1980 : 202) foresees in this advertisement:

Wanted: Group Vice-President

*Responsibilites include
co-ordinating finance
product line development
in several divisions. Must
have demonstrated ability
to apply sound management
control. Report to
Executive President of
multi-line international
company.* **TYPING REQUIRED.**

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Table 1

Abrahamsson (1982)	Monge (1982)
Almaney (1974)	Penrose (1978)
Block (1979)	Persing (1979)
Brown (1982)	Pool (1977)
Cragan (1981)	Rasberry (1978)
Dawe (1974)	Read (1976)
Di Salvo (1977)	Rogers (1978)
Heinrich (1964)	Ruesch (1970)
Hickson (1974)	Schary (1971)
Huseman (1976)	Slocum (1981)
Ireland (1978)	Stead (1978)
Irvine (1970)	Sussman (1979)
Ivens (1963)	Swindle (1980)
Koehler (1976)	Timm (1980)
Konikow (1975)	Tompkins (1975)
Lindauer (1974)	Treece (1978)
Makay (1980)	Tropman (1979)
Margulies (1978)	Vogel (1977)
McLaughlin (1964)	Williams (1982)
Minter (1974)	Young (1978)

Table 2

Contents of Organisational Communication Texts

Topic	Number of Books that Treat	Pages
Communication Theory	16	522
Organisational Communication	16	384
Interviewing	11	354
Organisation Theory	10	235
Communication Management	9	274
Small Group Communication	9	273
Conference Techniques	9	205
Listening	9	134
Communication Channels	8	343
Media Selection	7	209
Presentations	7	177
Research Methods	7	139
Communication Climate	6	206
Communication Networks	6	171
Nonverbal Communication	6	124
Report Writing	5	279
Barriers to Communication	5	247
Organisational Structure	5	205
Writing Principles	5	203
Organisational Change	5	170
Persuasive Communication	5	154
Informative Communication	5	135
Motivation	5	133
Leadership	5	87
Management Theory	5	82
Letter Writing	4	240
Decision Making	4	141
Conflict	4	133
Interpersonal Communication	4	101
Language	4	100
Perception	4	77
Information Capacity	4	72
Training	3	83
Communication Satisfaction	3	30
Publications	2	130
Intrapersonal Communication	2	65
Personality	1	45
Mass Communication	1	43
Consulting	1	20

From: Rogers, 1978:37.