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Chaos, Strategy and Planning: Can They be Reconciled?

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Abstract

Massive changes are occurring in the world in which academic libraries operate, as more and more information is stored and accessed electronically, and as there is a shift from teaching to self-directed learning and from one-off education to lifelong learning. The next decade at least will be one of chaos, during which old boundaries between libraries, computing, educational technology and teaching will be broken up. It is impossible to predict precisely what new patterns and structures will emerge, and it is undesirable to try to exercise tight control over the course of events. It is however essential to form some kind of vision of the future system of higher education and of the future information

* Maurice B. Line could not attend the Symposium personally due to extraordinary circumstances. The paper was presented by Sheila Corral.

world, and to develop a strategy for attaining the vision. The traditional strategic plan setting out firm programmes for the next three or five years should give way to a more fluid kind of planning in which flexibility and adaptability to change are key elements.

The World in Chaos

There is scarcely any part of our world that is not in a state of upheaval. The power of the nation state is yielding to a combination of globalization and tribalism - the latter partly in reaction to the former. Some of the big multinational firms control more money than all but two or three countries. Communism has been totally discredited, though not yet totally eliminated from the globe, while capitalism and market forces have not yielded all the benefits claimed for them. Economic power is shifting from the west to the east. Population pressures in less developed countries are being felt in the developed world.

Moral and social values that had undergone little change over the last 100 years are being challenged. This is partly due to the much wider exposure we now have to ideas and values in the rest of the world; what seemed absolute now appears to be relative. The gap between rich and poor, which had shrunk considerably since World War 2 in most countries, has widened sharply in many, and this is not universally regarded as a misfortune; the pursuit of equality of opportunity is giving way to economic and social Darwinism. Liberalism in its broader sense is regarded by many as a dirty word, while economic liberalism has become almost a gospel. The principles, enshrined in the United Nations charter, of basic rights for everyone, never given more than lip service by many states, are now not even given lip service by some. The age of ideologies seems to be over; in their place we have numbers of untested ideas, some of them extremist. While all agree that there are severe problems, not only is there no agreement on solutions, but few trust anyone else to find solutions, least of all politicians. We are often urged by them to 'think the unthinkable', which too often means following their latest ideas (trusting the unspeakable).

All this adds up to what might reasonably be described as a state of chaos. It might be said that chaos is not new. Every country has its own chaotic periods. In Britain, one such period was the 17th century, which was characterized by enormous political, social and religious turmoil; and in

medieval Europe, the Black Death led to chaos. What makes the present situation different is that chaos is not confined to one country or region of the world; chaos has become globalized.

Of the changes mentioned in my opening paragraph, globalization is not only one of the largest, but it leads to several of the other changes. And one of the major forces behind globalization is information technology, particularly the ability of computers to handle enormous quantities of information and the developments in telecommunications that enable information to be transferred almost instantly to almost anywhere.

The Information World in Chaos

Since libraries deal with information, it is not surprising that they are undergoing more than their share of chaos. The factors affecting libraries are familiar: reduced funding from public sources, the capacity of the private sector to do much of what libraries have done, the ability of individuals to bypass libraries for an increasing amount of the information they want, insistence of their funding authorities on economic and social justification for all they do, and perhaps above all the fact that the very material that libraries handle is fundamentally affected by IT.

Publishing, which has this last factor in common, is also in a state of chaos; few publishers are bold enough to predict where publishing is going, or can even say what 'publishing' means when anyone with a computer can produce and distribute material. The future of indexing and abstracting services is more and more uncertain. Boundaries between publishers, the book and periodical trade, database producers and libraries are now very fluid, and there is little sign yet of where new boundaries will fall. The role and functions of national libraries and public libraries are challenged by one report after another: whom they should serve, what they should do, how they should do it. Industrial libraries have tended either to disappear or to turn into information management centres. Incremental change is on its way out.

Libraries in the public sector are especially affected. Hitherto they have been protected from the jungle around them, trading off lower salaries and an absence of thrills for job security - living in cages where they can feed and breed in comfort. The fences around the cages are disappearing fast, and public and academic librarians have to learn to survive in the jungle. When even the jungle is changing its nature, this is a tall order.

The World Wide Web, itself a chaos on which attempts are constantly being made to impose some order, is responsible for changes in the provision and dissemination of information that would have been inconceivable only five years ago. I have begun to divide my colleagues into spiders, who know how to manage the Web, and flies, who struggle in its threads fearing that they will awaken the World Wide Spider and alert him to the fact that supper is waiting.

Universities in Chaos

Academic libraries are probably the most stable type of library, since at least their clientele is assured - or is it? For the academic world too is in chaos. Not only is it also subject to immense funding pressures, but there are other forces that are having a more fundamental impact. The one that is least directly related to IT is the move to lifelong learning. The content of most degree courses, in science at least, begins to go out of date within five years, and after ten years much of it is obsolete. I have started to wonder whether degrees should have a 'sell by' date on them, and be expunged from the person's record after ten years. The only thing that is of permanent value, apart from a solid core of basic matter (such as mathematics in a science course), is the knowledge of how to learn. Graduates ought to be good at knowing where to find new information, how to assess its value, and how to use it. They ought also to be imbued with an inexhaustible curiosity, an insatiable hunger for knowledge. In today's unstable job market, where some jobs are declining and new ones coming into being, and where lifelong employment in one sort of job, let alone with one employer, is very much the exception, the ability to update existing knowledge and gain new knowledge is vital.

One major consequence is that lifelong learning will not only be necessary but will become more important than a first degree. Some large firms have recognized this and created what are effectively their own academies to educate and re-educate staff. One would expect universities to play a large part in the process of lifelong learning at higher levels: in the case of large firms a supporting role, in the case of smaller ones a main role. If they do not play a role, they will be missing a huge opportunity. If they play a role, it will certainly involve a great deal of remote learning, for which the technology is gradually becoming more adequate. The whole system of qualifications will need rethinking. So will the physical nature of universities; they will still need campuses, but they will change from mainly

centripetal to mainly centrifugal systems. (At sub-university levels of education, the public library may find a major future role for itself by playing a large part in lifelong learning).

The shift to lifelong learning is one fundamental change. Another, more closely connected with IT, is a shift from teaching to learning. This is being forced on universities by financial constraints - teachers typically account for about 70% of a university budget - and enabled by IT. It is also good in principle, since self-instruction is a much more effective form of learning than being taught. It incidentally ties in with another modern trend, an emphasis on individual responsibility: the onus is on the learner to learn, rather than on the teacher to teach. Teachers will not become obsolete; they will produce much of the educational software, they will mentor students, and they will still give some lectures and classes. But the balance between teaching and learning will change, and the teacher will no longer be the main resource in the university.

Another factor that will enforce change is the modern emphasis on the customer. The 'take it or leave it' mentality has almost disappeared from industry and business; people want and expect a choice, and will shop around or keep demanding until they get what they want. Translated to the academic world, 'the customer is king' philosophy becomes 'the student is king' - and the university becomes the servant. We are moving back to a situation like that in medieval Paris, where students effectively employed teachers. We can of course do better than medieval Paris, since we can tailor the service - not only the means and speed of delivery but the content - to the individual. I wondered if I was exaggerating the change - or expecting it too soon - until I saw it had already reached a quite advanced stage in one university I visited recently; there, students were working in study groups, and making requests for information and (to a lesser extent) teaching as and when they wanted them.

A major consequence of both these shifts - from one-off to lifelong learning and from teaching to learning - is that a rigid division between teaching, computing, educational technology and learning resources (which include the library) becomes both dangerous and increasingly meaningless. Moreover, the importance of learning how to learn makes it necessary to break down barriers between teachers and librarians. There has been a strong trend towards 'convergence' between libraries and computing in some countries, often for reasons of finance rather than of principle; in at least one British university convergence has become integration, to the extent

that the staff of the two areas have been merged. Convergence is in fact taking place in *learning resources* (e.g. educational software, books), *learning systems* (computers, libraries), and *learning suppliers* (e.g. teachers, librarians). The implication is that the entire university will need to be restructured if it is to serve the needs of society and meet the demands of individuals.

Chaos is Not Necessarily Bad

The above diagnosis may alarm you or exhilarate you - or it may be so familiar to you that you are wondering why I bothered to say it all. What it cannot surely do is to leave you complacent that you can all go on as in the past, when you could plan for next year by adding a bit the last (and then chop bits off because there was not enough money); for the changes are not incremental but fundamental. Incremental planning is, as noted above, on the way out - it is useless for dealing with chaos.

There is no need to be afraid of chaos as such, though some of its manifestations are unpleasant if not disastrous in the short term. In physics and biology, where chaos theory was first developed, it was found that what appeared to be disorder in fact possessed its own higher order. The chaotic processes were simply not being seen in the right perspective or with the right spectacles. If an attempt was made to interrupt them, the higher order was not attained. In some cases, a period of chaos was necessary because a process had reached a stage where gradual or incremental change was not sufficient to ensure survival: renewal was necessary. There are plenty of examples of this in nature. The huge forest fires in Montana some years ago were greeted as a major disaster, and efforts were made to control them; but it was found that where control was impossible the forest recovered more quickly than where control was attempted. In Australia, devastating bush fires every few years are known to be essential to regeneration. There are also many examples in human history of a country emerging from disaster much stronger than before it occurred. Japan is the most obvious example: only a massive disaster like the World War 2 could have swept away the stifling old imperial system, and by losing one war Japan won a more important one. One has no difficulty thinking of other countries that are currently encumbered with long obsolete features which no-one has the energy or courage to scrap, situations that only a major disaster would cure.

Chaos can often be triggered by a seemingly trivial and unrelated event. The classic example is of the butterfly in the Amazon flapping its wings and setting off a chain of events that ends in a hurricane. The library equivalent of the butterfly might be a civil servant who sneezes at a critical point in a discussion on library funding, or a government minister who arrives at his office on a critical day after an argument with his wife. We could probably all relate tiny events that led to large consequences. But chaos can also be caused by a build-up of several developments, as we are seeing today.

How Not to Deal with Chaos

I am not saying that cataclysms are always good for you. In the short term they almost never are, but in the longer term they may be necessary for survival. In the case of libraries, survival of what, though? Surely not libraries as such, since libraries are merely instruments to the end of ensuring the transfer of information (in its broadest sense). I will return to this issue later, and discuss now how one should deal with situations of chaos. They cannot by definition be controlled; as in nature, the attempt is bound to fail and will probably make things worse (which explains why many governments fail, and why bosses of firms under threat who react by trying to impose more order usually fail). It is also useless to try to ensure that things go back to the situation before chaos ensued (another weakness of governments and bosses). They cannot be ignored; people cannot retire into their fastnesses until the period of chaos is over, since people are an integral part of the chaotic situation. In any case, it is impossible to expect people to ignore situations that threaten their existence. So what can one do?

Planning of the old kind is not an answer. It was never easy to predict what would happen in the next three or four years, and it has now become totally impossible. Time after time universities, and libraries, work out detailed plans, which are totally wrecked by a government change of policy or a further cut in budget. I remember being asked a few years ago how a library in a less developed country could make sensible strategic plans in very unstable conditions; we in developed countries can now sympathize with them. Mintzberg^{1,2} has articulated what many were thinking and more were practising, certainly in industry: that much strategic planning was not only useless but positively dangerous. A great deal of effort is put into five-year plans, which commonly suffer one of two fates. Either they are not acted upon after the first year, in which case they are a waste of time and

demotivating to the staff who helped to prepare them; or, worse, they are acted upon, in which case wrong trails will almost certainly have been pursued and opportunities will have been missed. I would very much like to see a study done of strategic library plans of the last ten years and their subsequent fate of both them and the libraries concerned; I suspect that some plans are so utterly forgotten that it is hard to locate a copy of them.

The Need for a Vision

This does not mean that one should not have a strategy, or that one should not plan: merely that the conventional process of planning needs rethinking. But nothing can be done unless the library has some idea of where it wants to be in, say, ten years' time. Unless there is some possibility that light will appear at the end of the tunnel, people will not enter it. It is therefore necessary to develop a vision towards which people can strive during periods of great uncertainty. The vision may prove unattainable, or it may not - almost certainly will not - turn out as desired (an experience familiar to early explorers). It would probably be wrong to say that any kind of vision is better than no vision, but to have no vision is to surrender to chaos.

Any human vision is bound to incorporate values, whether these are articulated or not. Systems cannot be quake-proofed, but ideals and values can. I mentioned earlier that many values we had come to accept as basic were being challenged. A value that is fairly recent in historical terms is the principle that everyone has a right to receive information other than what it is absolutely necessary to keep secret. While there can be dispute about what is 'necessary', it is nearly always much less than we are led to believe. It is noteworthy that extensive restrictions on information are without exception imposed by the nastiest regimes. Away from the sphere of politics, there is far less dispute about the right of people to be educated and to have access to published information. If it is a right of the individual, it is seen by the country as a necessity: countries of all political complexions, from Singapore to Cuba, from Iceland to China, recognize that education at all levels is an essential (if not sufficient) key to prosperity and stability, and that education depends on information. Authoritarian regimes also realize that whatever steps they take to restrict information are in the end doomed to failure by modern technology; a notable recent example is the use by Mesquito guerillas in Mexico of laptops and modems to let the world know what was happening.

One element in any vision of libraries must therefore be free (that is, unrestricted, not necessarily free of charge) supply of information. So far as the academic library is concerned, this involves the ability to know what there is on any topic and to have access to it. But since, as I have suggested, it will be impossible to consider the library as a separate unit in the university much longer, this must also be part of the university's mission. I simply do not see that the library can sensibly prepare a vision alone. It can however take the lead in the process of creating a vision; someone needs to, and I have seen little sign of any other part of a university taking steps in this direction. An ideal approach might be for the library to first sort out its own thoughts and then convene, or ask the university to convene, a Think Tank composed of imaginative and creative people who are concerned with the future of learning and research rather than with the protection of departmental territories or the expansion of personal empires. The members need to be brave people to, since their conclusions may turn out to be so radical that their careers may be at risk (if you see the writing on the wall before others you may be suspected of having written it).

The Need to Develop Flexibility

At the end of such a process the library as an organizational entity may disappear. However, the functions it performs will not disappear. The library may become part of a larger unit, or its functions may be differently distributed in a changed university structure. It should not be our aim to preserve libraries but to foster learning and research; if that can be done in other and better ways, that should not be a matter for concern. For one thing is certain: that most of the competencies of librarians will become more rather than less needed, because information handling skills (knowing how to learn) will be of prime importance and because the vast quantities of information available will need to be managed.

How librarian skills are deployed may however change substantially. Since chaos cannot be controlled, it can be survived successfully only if we keep a close eye on what is occurring, explore its possible implications and consequences, and adjust rapidly - if necessary radically. If this is to be achieved, two things are vital. The first is that there is absolute openness of management and total trust between managers and staff, and that staff are intimately involved in all thinking and plans. Without this, not only will necessary changes meet resistance, but the deep and varied resource that staff represent will not be fully used. I have to say that in all the many

libraries for which I have worked as consultant openness and trust are very rare - the library's boss may think they exist, but staff have a very different tale to tell.

The second requirement is that flexibility and the capacity for speedy response are cultivated. Systems and procedures must be capable of change, but above all staff must cultivate flexibility as if their lives depended on it - their jobs certainly may. Openness of mind, an unwillingness to accept textbook solutions, eyes that are swift to spot problems and to see opportunities, imaginations that can find ways to seize them - these are becoming paramount qualities. Some new skills, or the cultivation of existing skills, become important. The emphasis will be on transferable skills, which can be applied to a variety of jobs inside or outside libraries. Knowledge of IT is obviously essential: not just what it can contribute to the library, but what it is doing to the world of publishing and beyond. But above all, the library will need to be alert in its mind and quick on its feet.

The organization needs to operate as a whole. That does not mean that conflict should be suppressed: rather the reverse. It should be encouraged so long as it is not personal or destructive, for dispute and discussion are a fertile ground for new ideas. Total consensus in an organization is not easily distinguishable from slumber. The mood should be one of continual excitement and exploration. Systems and activities that have served their time should be discarded ruthlessly: as well as thinking the unthinkable, staff may need to unthink the thinkable.

As for bosses, they must not impose their own ideas or solutions on the library, or even their own analyses of the situation. Bosses often feel that they are losing control or not doing their jobs properly if they are not 'directing'. Chaos will ensue, they fear, if staff are left to work things out for themselves and not kept on a tight rein. But studies of chaos theory applied to organizations show that many bosses who can tolerate some seeming disorder and leave staff alone are more effective and better respected. Over-direction is much more common than under-direction, and much more damaging. The boss's job is to take the lead in developing a vision, to coordinate activities, to try to ensure that the abilities of all staff are exploited to the full, and perhaps above all to convey a sense of excitement - which is of course difficult if the boss is not excited him/herself. Sometimes - rarely - intervention may be necessary; experience and keen judgment are needed to recognize those few occasions.

'Sitting back' requires courage and a personal sense of security; it is usually the insecure boss who over-directs. The same courage and security need to be cultivated among staff. They too need to develop a tolerance of uncertainty, something that may prove hard for some librarians who have seen the imposition of order as their main task in life. If they are to be creative and imaginative, they must be sure that new ideas will not be rejected, and must also be given the freedom to innovate, including the freedom to take risks and make mistakes; for it is impossible to be right all the time in chaotic conditions.

It has to be said that librarianship is not a job that has normally been seen as an attractive one to innovative people. Though that perception is changing gradually, most libraries have staff who will not take kindly to the new chaotic world, and who would be much happier working within tight rules and boundaries. This is not the place to discuss how to handle staff who were recruited in different times with different functions in mind, but I believe that in many if not most cases such staff can be encouraged to shed their old clothes and can come to make a notable contribution to the new world in which they are finding themselves. They certainly cannot be bullied into imagination and innovation, and undue pressure will only make them feel more insecure. Staff who are truly flexible will know that wherever the library ends up in the organization, and even if they end up outside the library, they will have a part to play and be able to play it.

A New Kind of Planning

To handle chaos, then, a new approach to planning is needed. Chaos must not be feared; it cannot be managed, but it can be lived with, and its workings can be understood up to a point. We cannot see how or where things will go, but we can watch and work with trends rather than against them, exploring ways of adapting them for our purposes.

A vision is needed, which is part of a much broader vision of the university, and in the preparation of which all staff are involved. A mission statement may or may not follow, depending on where the library fits into the future scheme of things. A strategy then needs to be developed for working towards the vision, and plans made for the next year or so. But these will not be rigid plans. Few generals ever won many battles by sticking to a rigid plan; indeed, a characteristic of a good general is that he adjusts his strategy to the needs of the moment. So in libraries, changes in plans may be

necessitated at any time by new circumstances. And a main component of any plan will be the development of flexibility.

The main value of strategic planning was always in the process, rather than in the plan. For plans, though they were often useful in convincing the authorities that the library knew where it was going and had a strategy for getting there, were at best short-lived, and had to be revisited every two or three years. But the process, if it involved all or most staff, had effects that were much more long-lasting, for it developed in them managerial skills. It obliged them to think strategically, to think in terms of ends before means, to see their own part of the library in a wider context, and perhaps to work in teams. These virtues of strategic plans must not be lost, nor need they be.

A different style of management will be needed. This can be developed, and demonstrated, during the process of planning for incessant change. Staff must work as one, but the 'one' must be the product of debate, not a bland homogeneous one. There must be a constant atmosphere of openness and trust. In the process of change, it is likely that the organizational structure of the library (while the library exists) will also change. There are now a number of structures in libraries that might be considered experimental; there will be more before a new norm comes into being.

All this sounds very much like a recipe for an industrial organization. Libraries, it may be argued, are not industries, and need not adopt the behaviour of industries. There are differences, it is true, but many things that have always been important in industry have become just as important in libraries: cost-efficiency, lean processes, constant attention to customers - all these are indispensable for the modern library. There is a new similarity: the old belief that whereas an inefficient industrial firm would collapse, libraries were assumed to have a permanent life, is no longer tenable.

Conclusion

Chaos may not be good for you, and there are undoubted hazards ahead, but living with chaos can be exhilarating. I know it is easy for me to say this as someone who is no longer a practitioner in librarianship, but if I need to justify myself I will mention that I challenged quite a few sacred cows when I was a librarian farmer myself. I suffered in consequence attacks from various angry bulls, but numerous calves came to my aid. This is a point on which I want to end: that while not all established librarians may welcome

our present situation, the newer generation may have a clearer view and a more positive attitude, seeing in chaos at least as many opportunities as threats.

References and Further Reading

1. MINTZBERG, Henry. The fall and rise of strategic planning. *Harvard Business Review*, 72, (1), pp. 107-114, 1994.
2. MINTZBERG, Henry. *The rise and fall of strategic planning*. New York, Prentice Hall, 1994.

Some of the above issues were aired in a paper I wrote two years ago:

LINE, Maurice B. The road through chaos: the future role of the university library in the creation of knowledge. In: *Serving the scholarly community: essays on tradition and change in research libraries*, presented to Thomas Tottie... Uppsala, Uppsala University Library, 1995. pp. 13-22.

A more recent paper touching on some similar issues is:

LINE, Maurice B. Managing change in libraries. *Journal of Information, Communication and Library Science* (Taiwan), 2, (3), pp. 3-12, 1996.

Three books on chaos theory applied to management are:

STACEY, Ralph D. *The chaos frontier: creative strategic control for business*. Oxford, Butterworth-Heinemann, 1991.

STACEY, Ralph D. *Managing chaos: dynamic business strategies in an unpredictable world*. London, Kogan Page, 1992.

WHEATLEY, Margaret J. *Leadership and the new science: learning about organization from an orderly universe*. San Francisco, Berrett-Koehler, 1992.

A recent paper that emphasizes the forces that make change in universities and academic libraries necessary is:

STOFFLE, Carla J., RENAUD, Robert and VELDOF, Jerilyn R. Choosing our futures. *College and Research Libraries*, 57, (3), pp. 213-225, 1996.