LOOKING BACK TO LOOK FORWARD

"Chicken Little Redux" or Strategic Lessons Learned

2001 Miles Conrad Memorial Lecture
NFAIS Annual Conference
February 27, 2001
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I am extremely grateful to NFAIS for the honor they have given me in selecting me for the Miles Conrad Memorial Lecture. When Jill O'Neill and Brian Sweet called, I was momentarily speechless. That rarely happens. One could easily be intimidated by these lectures. In several cases the honored speaker has provided a thorough historical view of a particular piece of our business. I have chosen a different approach and I hope it lives up to your expectations.I am not a specialist. I am a generalist, so I will offer a generalist's observations. What I hope I represent is 35 years of experience - not one year's experience repeated 35 times

.A BIT OF BACKGROUND
I graduated from college 35 years ago and I had been programmed by my advisor that my next steps were a masters degree and then PhD in history, so I could follow in his footsteps. I tried that, but after the master's degree I decided that I was not then and never would be an intellectual. Needing to work, I signed up for technical services in the library at Cornell and then commuted to Syracuse to get my library degree, or union card.

I spent a total of five years in the libraries at Cornell and that was probably the best work period of my life. Everything was new. You could absorb information like a sponge, because there was nothing there to get in the way. I had four jobs in five years and loved it all. I thought I was so smart - even after one of my bosses took me aside and said: "Karen, your mouth is going to get you in trouble."

After five years at Cornell, I moved to the book wholesaler Baker & Taylor, during which time I commuted to Columbia for a master's degree in business. About the time I was finishing that degree, B & T was imploding. During the four years I was there, it went from being a very large but traditional wholesaler, strongest in school and public library markets, to a wholesaler with sales forces for academic libraries, international sales, audio-video media and school supplies. It wanted to reach into the special order, special library market and to make deals with publishers to push individual books. Quite simply, it forgot what business it was in and, in 1976, it had to regroup and scale back, refocusing on the core business. I recall lines of people, some just hired a month earlier, queued outside of HR to turn in keys and credit cards. I have never forgotten that lesson. Keep focused on what you do well.

It was time to move on and I was hired by Elsevier. In 1976 we were a small company in the United States and Americans frequently asked "Elsie who?" I was hired to do a wide range of assignments under the general heading of strategic planning. And for much of the past 25 years I have been involved in strategic planning, particularly the transition from paper to electronic for journals. And that takes me to today's topic.

LOOKING BACK AT LESSONS LEARNED
Regardless of what we might want to believe, strategic planning is at best an art. It is certainly not a science. Some will say it is not worth doing at all, and I sometimes concur with that view. I am not certain the formula of doing the traditional SWOT analysis - strengths, weaknesses, opportunities and threats - is always helpful. By the time you get done with the SWOT part, you've lost your energy to do the plans themselves. The whole process certainly burns people out. I am just now starting my fourth formal cycle back in corporate strategy - I have had to be given a reprieve every few years.

In any case, whether the development of strategy and plans is a formal process in a company or the de facto result of day-by-day evaluations of the business and decision making about where to invest and how to expand or retreat, all companies make judgments about the future. Too often the process of making those judgments is rigorous but there is no habit of evaluating those judgments later. For the next few minutes I want to talk about lessons learned - positive and negative - by looking at past plans and decisions. I will use Elsevier's activities as examples, because that is what I know best, but this is not intended to be a single company focus, so I apologize in advance should it seem that way.

Lesson 1. It is easy to misjudge the speed of change and the drivers of change.
We've all been making strategic decisions for at least a decade based on our perceptions of technology developments and the speed of change. The opportunities for electronic dissemination of full-text scholarly information were evident not long after I started at Elsevier in 1976. Before the end of that decade we were seriously talking about storing our journals in machine-readable form and building what we would later call media-neutral databases. Perhaps we were more sensitive than some journal publishers because we had already had experience with Embase as an electronic database.

However, we thought things would happen much faster than they did. I recall giving a speech at an American Library Association meeting in the early 1980s and predicting that if journal publishers did not jump on board the electronic train, it would leave the station without them. Fortunately, we were wrong about the timing. I say "fortunately" because it took much more time to get ready than had been anticipated. However, the belief that things might happen more quickly probably was a useful one, as it put a sense of urgency behind experimentation and investment.

What led to the misjudgment on timing? I believe there were many reasons, including economics, complexity and a misunderstanding of killer aps.

- The economics weren't right.
Consider Adonis, the coalition of publishers that came together in the early 1980s to use technology to substitute for manual photocopying. The British Library was supplying about three million photocopies of journal articles a year. The thought was that if we could store journals electronically and use those electronic copies as the source for printing copies and if that could be done more cheaply than the BL's "rubber heels and rubber wheels" system, then perhaps the BL could be convinced to adopt the electronic system and pay a royalty from the money saved in the process. The flaw in that argument was that it wasn't cheaper. When all the analyses were finally completed, it became clear that the British Library's manual system was far less expensive than the costs of the electronic system, which included $40,000 alone for a Phillips optical disk workstation. The business model was not right.

It wasn't until CD-ROM was available and PCs common that the economics looked plausible. Adonis as a commercial service was launched in 1991, more than a decade from its beginnings.

- The technology wasn't ready to handle complex materials easily.
We all knew that dealing with scientific journal information was not the same as dealing with legal or business text or financial data. But we underestimated what it would take to solve these problems. It was hard work to get journals into an acceptable online form. We started early and figured it would take about five years to convert all of our 1,100 journals to SGML. It took almost double that. I well recall saying we were in the "sixth year of our five year plan" and later "we're in the eighth year of our five year plan." Some publishers are still struggling today with some of the basics. And even the most sophisticated publishers are just today addressing some of the more complicated challenges, such as designing complete mathematical font sets that will really work for screen display on the Web.

- We didn't really understand "killer aps".
Technology moves rapidly when it makes it easier for people to do something they have to do anyway. Let me repeat that. Technology moves rapidly when it makes it easier for people to do something they have to do anyway. Word processing was the killer ap for PCs for most people initially. That you could also do spreadsheets and related other applications made the PC more appealing than a standalone word processor, but without word processing, I do not believe the PC would have spread nearly as rapidly as it did. The same can be said for e-mail and the Internet. Yes, there was e-mail before the Internet, but it was clumsy. It was not easy to communicate between unrelated systems.

However, a "killer ap" does not mean automatically that the technology will be adopted for other uses. It may be enough to bring a technology in the door. It does not ensure that it will be used to its fullest. The old saw about the number of VCRs blinking 12 o?clock applies to use of our services as well. Which leads to Lesson 2.

Lesson 2: You can never overestimate how little some of your customers know about what your product or service can do.
I recall focus groups we held to get opinions on a new electronic service we had offered to immunologists. These were dedicated early adopters. They had to work hard to get this service to be even operational on their PCs and Macs (this was pre-Internet). When we asked them how they liked revolutionary features X, Y or Z, the usual response was a blank stare and "I didn't know that was there". Obviously, this reflects on the difficulties of interface design, particularly pre-Web. But it is also symptomatic of the reasons some technology changes take longer than you think they will.To offer another analogy and example: Using a service offered via a Web browser today is about like driving a car. When you get in any car, you can usually rather quickly find the lights, the windshield wipers, turn signals, radio controls and door locks. A Web browser product is similar - you can find your way around the standard browser features pretty easily. But recently my husband and I rented a car in France. All instructions were only in French and we were too lazy to parse our way through them. The dashboard was awash with incomprehensible buttons - marked "D" or "P" or something else totally useless for us. I?m sure there was a wealth of neat features there at our fingertips, had it been intuitive or had we bothered to study the manual. But it wasn't and we didn't and my guess is that we were typical. How many of your site's features go unused because they are not obvious?

Lesson 3. Converse of lesson one: it is also easy to be quickly overcome by a change in technology.
Remember when we all thought CD-ROM was going to be the answer for electronic dissemination? Certainly it still has a niche role to play, but not the lead. Why didn't we see its limitations sooner? Perhaps because it offered so many improvements over paper. It was, after all, "compact". You could easily carry it around or send it in the mail. It was searchable. But it was also awkward to store in a library setting, unless held on server for local network use. It was easily misplaced or stolen. It was slow for retrieval. And however "compact," it took a lot of them to handle long journal runs. But, it looked so good at the beginning - until the Web came along.

The same can be said for local systems on local area networks. When we introduced the TULIP experiment in 1991, the goal was to mount large journal files on local university networks. Each university would provide its own software for access to the journals. There were nine implementations, nine unique approaches to the problem. The universities were receiving 4,000 journal page images every two weeks and had to find a way to make them accessible on their campus.

Midway through the four-year experiment, Mosaic made its debut. I still recall sitting at a Coalition for Networked Information lunch with Bill Arms (then I think still at Carnegie Mellon but now at Cornell) when he said, in essence, "Mosaic is not perfect, but it just could be what we have been waiting for." How very right he was. While most TULIP universities persevered with their local implementations, one university stopped in mid-course. They had stumbled from the beginning, having created a Unix application, only to find there were only Macs in the materials science department that would use the TULIP journals. Faced with the need to redo their work, they threw up their hands when Mosaic made its debut. Clearly this was going to be the answer--they would wait.

Had TULIP been a commercial venture rather than an experiment, we might have been blindsided by the rapid uptake of Web browsers. As it was, we were lucky and the timing was perfect. We learned from the experiment, offered a commercial product for local implementation and were still also able to make the transition to the Web later with another service. Which leads to my next lesson.

Lesson 4. Prototype or perish.
I think that slogan actually comes from Nicholas Negroponte and the Media Lab at MIT. Prototype or perish. Don't talk about it - do it. This is one of the things I would credit Elsevier with "doing right," but I'm not certain how much of it was part of our formal strategic planning and how much the insight of a couple of key people.

In the 1980s there were at least two competing views of experimentation within Elsevier. One of our managing directors ? the one with strategic planning officially in his portfolio - had a carefully drawn view of all of the pieces that had to come together in the creation, production and distribution chain to have an electronic publishing program. He wanted to be sure that we had something underway -

whether operational or experimental - in as many pieces of this chain as possible. That was a strategic view that was visionary, albeit a vision shared with and understood by very few. The experimentation was largely carried out by corporate staff.

On the other side was the managing director responsible for the publishing operations. He wanted to prototype, basically without any overall plan. We called it the "let a thousand flowers bloom" strategy. He knew that it was unlikely that anything significant would come from these bits and pieces. But he wanted his publishing editors to learn about the new technologies, to get their feet wet. His management challenge was to avoid a "Baker & Taylor" crisis - that is, that the editors would become so distracted that the core business would suffer.

In the long run probably both approaches were correct. However, there did develop two competing lines of investment and innovation - those at the corporate level and those within the individual publishing programs. These are only now merging, 10 to 15 years later. Was this foreseen and in the corporate strategic plan? Only partially. Was it the wrong way to go? No, but it was bumpy sometimes. What was unequivocally correct was the persistence in prototyping.

Lesson 5. Beware of ventures in non-core businesses.
Having said that experimenting is important, if a venture is too distant from your core business it becomes simply a speculative investment, not part of the strategic learning process. I can cite two examples that I was intimately involved with within Elsevier, both funding start-up programs that failed.

The first was a venture called Medical Equipment Reference Service or MERS. It was intended to be a series of directories and a database similar to the PDR but for medical equipment. We put about a million dollars into that effort before abandoning it. There never was agreement about why it failed - probably basically inexperience of its management, coupled with a misguided notion of trying both to get equipment manufacturers to pay for their listing and also have a comprehensive directory. But fail it did. And we learned very little from this, other than how to lick our wounds. That's not how good planning should work.

The second was a much more understandable failure - at five times the cost. We backed a physician with an outstanding system to assist pathologists via databases of pathology images that had been diagnosed by experts. One could perform digital analysis of the images and develop algorithms to use to help with other diagnoses. This was incredibly innovative work, driven by a brilliant inventor. We planned to establish editorial boards in each subspecialty of pathology and develop annual subscription updates to the basic database. But this was leading edge technology - pathologists didn't believe it could do what we said it could do. Our critical mistake was trying to make a commercial venture of it much too quickly. We lacked patience. It should have stayed in the labs for a lot longer and slowly built up a following, based on testing and articles in refereed journals attesting to its breakthrough qualities. We wound up shutting down all operations and giving the rights and database back to the physician who started it. I don't know whether the venture still exists. A search on the name on the Web returned nothing.

Why do I bring these two failures up in the context of strategic planning? First, neither was in the plans. They were undertaken in response to proposals brought to us - which is in itself good, showing we were open to opportunities. But they were undertaken in part precisely because they were outside of our core business. If they failed, nothing important got hurt. Or so it seemed. But they did absorb money that could have been invested in other ventures and they certainly ate up management time and attention.

But there was something more fundamentally wrong. Perhaps it was a "Baker & Taylor" episode again - we were distracted from our core business. I suppose that had either of these ventures succeeded, I would tell the tale a different way - "Look at how willing we were to accept the risk of trying something unknown. Weren't we brave?" And some of that would be true as well. But the bottom line was that it was relatively easy to try these things because it was "only" putting time and money into it. And when they failed, we were only bruised - and had learned little to carry over to advancing our base business.

One small note: these examples should not be taken as admonitions not to take on risky ventures. I also firmly believe that if you aren't failing from time to time, you aren't taking enough risks. It is in the choice of risks that I have learned a lesson.

Lesson 6. As an industry, publishers for years have only given lip service to market research.
I would argue that virtually every company in this room, whether for profit or not for profit, secondary, primary or other type of publisher, thinks it is creating products and services that meet user needs. I would also argue that not enough of us really engage our users in meaningful, continuing dialogue.

How many of you have on your Web sites not only an e-mail form but a questionnaire asking users of your service to rate their experiences with it? [Three hands up in the audience.] We don't. We have recently started a large-scale author feedback program, giving authors the opportunity to rate us, much as you might if you stayed at Marriott or another hotel that routinely solicits customer reactions. That gave our journal editors a bit of a start - what, we were going to ask authors if they as editors (as well as we as publishers) had done a good job? ... but the editors are now largely happy to receive the feedback.

Within Elsevier I would say the TULIP program was the best market research program we have done. It was an experiment that was long enough (four years), in depth enough (ultimately 80 journals) and broad enough (nine installations involving 16 research universities) to really learn how users and buyers might change their behavior and what was needed to provide an acceptable product. TULIP was never in our strategic plan. Talking to the market about electronic journals was, however, and it was out of such discussion that TULIP arose.

Now most of us have switched from an experimental to an operational mode. The "market research" tends to be more often to issue a new release and then see how the customers react. We say that the new releases reflect what customers have said they want and, indeed, that is generally true. We, and I would guess many other publishers, have regular user group meetings around the world and advisory panels that assist us in setting priorities. So we are not deaf and dumb.

Yet, just recently I was taken aside by the one young researcher present at a small discussion session with prominent editors, who said "You must talk to younger scientists - we are different." We all give lip service to the fact that things will be different as the generation raised on PCs and the Web moves through the educational system. Well, guess what? They're here now. Current doctoral students have been exposed to the Web since high school. Do we understand what their concept of doing a bibliographic search is? Do we want to know? Are Northern Light or Google or Bright Planet - or their successors - the access points of choice? If so, it is not necessarily bad, if we know how to structure our content to work with them. It is a mismatch if we assume traditional searching will prevail.

Lesson 7. It's hard to break from traditional thinking patterns.Sometimes what you need is a few good people dedicated to the task.
In early 1994 a small team within Elsevier decided that we wanted to do more regarding the strategic planning for electronic dissemination. We took ourselves off for a retreat and created what became the electronic blueprint for our development. It set in motion a wide range of activities, including the establishment of an "electronic warehouse" for the permanent archiving of our electronic files and the decision to do a work-around to create image files for commercial release while we were working on getting our SGML production processes up to speed. We hadn't "planned" on doing this and we didn't tell any one in advance - we just did it and then sold the results to our Board. This blueprint was a breakthrough event.

A year later Reed Elsevier purchased Lexis-Nexis, and Elsevier Science was told to go do something with them. I was given the mandate by our chairman to take 4 or 5 people of my choice out of their jobs for up to six months. That team was incredibly creative and was ultimately enhanced by a number of other innovators within the company. We had a mission - to design a service that would leverage our assets in a way that would be competitively hard to match. In blunt terms: we had a large journal collection, a growing collection of secondary services, money and the technical experience of Lexis-Nexis. If we couldn't do something with that, there was no helping us. From that came ScienceDirect, a service about which I continue to be proud.

What is my point in describing these two activities? First, that sometimes a small group can do a lot to change what a company is doing. If you can assemble the right people - and if you then have the backing of the person or people at the top - many things can happen. Second, both of these groups' activities were approved more as acts of faith than as a result of detailed business plans. Yes, there was a business plan for the electronic warehouse because that was seen solely as a cost center debate about going ahead. Ultimately, however, it was approved on the basis of intuition more than financial argument. We never had a real business plan for ScienceDirect. Everyone simply "knew" we had to do it. That's what our strategic planning had told us for years.

Some of the biggest decisions or activities can come from the strategic activities of a few motivated people and may be approved based on collective judgment rather than business plans. That is part of what I have learned and valued being associated with these projects.

Lesson 8. Listen when your market is trying to tell you something.
As part of my preparation for this paper I reviewed both some of the papers and speeches I had given in the past and some of the strategic plans I had written for Elsevier. It is funny how one's memory plays tricks on you. If you had asked me when what is referred to as the "serials crisis" began in earnest, I would probably have said the mid-to-late 1980s. The enormous drop in the value of the dollar near the end of that decade put foreign publishers - commercial foreign publishers - on the defensive in a way we had never really been before.

Yet, already in 1986 I made a presentation at the Society for Scholarly Publishing's annual meeting called Publishing Strategies for the 1990s, or "Chicken Little was Wrong". In that presentation I said:

> "As to market trends, one must watch what is happening in the academic libraries--I am particularly concerned about two areas: the broad area of funding and the relationship between librarians and publishers. On funding, the main concern is not the overall level of funding; that is by now an old issue, albeit no less important by virtue of being long-standing. The greater concern is the need to reallocate the funding among a variety of services...

"And then I said:

> "As to the issue of library-publisher relations, my concern is ...the general deterioration of relations over the past 10 to 15 years. Once the library budget difficulties of the early 1970s were juxtaposed with the continued expansion of publishing output during that same period, frustration began."

Think about some of what I said:

First, relations with libraries had been deteriorating already then for more than a decade. Now it is 15 years later. While some librarians are not hostile, others have built their careers on hating all publishers to some degree, but consigning commercial publishers to our special circle of Hell. In 1991 when I stood in front of a group of librarians, I was told I was a lion in a den of Daniels. I believe the reverse would be true today.

And while the reasons are many and complicated, note the second thing I said in 1986. I said the "main concern is not about the overall level of funding." What rubbish - of course the concern should have been about the level of library funding! We know that for decades the growth in the scientific literature has absolutely paralleled the growth in the number of R & D researchers. And we know that most libraries have not kept pace in their funding.

Last week on one of the library listservs, publishers were chastised for not having lobbied legislatures for more money for libraries. My instinct was to post a reply saying, "Why didn't you ask for our help?" But, in truth, publishers should have been there without being asked.

Many of you have heard me tell my favorite story. I won't repeat it in total here, only a summary. I was asked in 1992 by a government official whether we would sign a single U.S. national license for our (then non-existent) electronic journals. As discussion progressed, estimates were made about the annual cost of buying a license not just for Elsevier titles but for all publishers' scientific journals. My guess then was a cost of $2-$3 billion dollars a year. The response: "I can do that. That's two bombers." I've been telling that story for more than eight years. What I should have been doing is lobbying the government, asking it to invest the equivalent of two bombers each year in order to provide U.S. researchers access to all of the world's literature.

The comment on the listserv last week was right. Chicken Little was right. To a very real degree the sky was falling 15 years ago and we did not, as a publishing community, react effectively. Neither did libraries, but that doesn't relieve us - by which I mean all publishers - of some of the responsibility.

Lesson 9. Secondary publishers have to be as creative as everyone else if they want to survive. Maybe more creative.
Many, perhaps most, of you in this room know more about secondary publishing than I do. That is one of the reasons I have chosen not to address the specific concerns or issues of secondary publishing today. But I do want to relate a strategic planning story about Embase, as it also taught me a lesson. I can't date this story precisely, but I would guess the mid-to-late 1980s.

Whatever the precise time, the fact was that Embase was getting killed by Medline. Medline was Mother in the U.S. market, particularly the medical school market, and was being sold at prices we couldn't match. Sales of the Excerpta Medica printed sections were falling fast and electronic revenues were not compensating. We could foresee a time when electronic full text of primary journals would be common, perhaps reducing the need for secondary services, and we were not certain whether we should stay in this business.

However, shutting down was not really an option, as the Chairman of the company was one of the founders of Excerpta Medica. We didn't believe he would look too favorably on our pulling the plug. In the true, "necessity is the mother of invention/Mickey Rooney and Judy Garland 'let's put on a show'" tradition - the show had to go on and we had to find a way to compete.

Fortunately, some clever people were put in charge and they both streamlined and modernized the operations - cutting costs, yet getting records out within three weeks of a journal's receipt, a then unheard-of speed. More importantly, they redesigned coverage to be internationally comprehensive in drug information. Embase was turned into the definitive source for pharmaceutical companies. Today, it is doing well and is acceptably profitable. And we have increased our overall position in secondary publishing considerably, building some new services and acquiring such industry leaders as Engineering Information and Beilstein.

Lesson restated: create sustainable competitive advantages. That may be an MBA's buzzword phrase - "sustainable competitive advantage" - but it is the right strategy.

Lesson 10. If the business models don't work, the technology may be useless.
Having said that sentence, I have little else to say on this point. I used to argue that there is far more technology available than we can afford to use. I suspect that may still be true. What is certainly correct is that we lack the business models to use technology to its fullest. Napster proves that as well as anything. The biggest issue in electronic publishing for ten years has been getting the business models right. And we aren't there yet.

Lesson 11. Some problems may not be solvable - or at least not in the way you would like.
Now, my last backward looking point, and, indeed, my transition to a few brief, forward-looking comments. On Friday I will make a presentation at a library conference. I'm going to talk about going "electronic only," by which I mean the decision to cancel paper and rely only on electronic versions of journals.

As secondary publishers, we've been down this path before. As primary publishers, it is new. The interesting - and appropriate - consideration for me in working with librarians is the importance electronic archiving plays in this decision.

I do not have the sense that libraries worried much about archiving when they cancelled their paper subscriptions to Index Medicus, Chem Abstracts or Engineering Index. But archiving of electronic journals is a very critical issue, concerning what is held, by whom, under what terms and conditions of use, and in what formats. It is important that we create archival arrangements that provide reasonable assurances of permanent access.

Some expectations are not reasonable, however. For example, we have been asked if we will archive all versions of ScienceDirect, so that in 2020 you could see what ScienceDirect looked like in 2000 and then what it looked like in 2001 after the next release. The answer is "no". To those who dream of complete retention, I can only say that it isn't going to happen and you have to accept that reality now. The goal of archiving everything completely as to both form and content is unreasonable and unattainable - give it up. In return, we will work diligently with you to assure achievable archiving standards and procedures for content retention and access.

LOOKING FORWARD

If, now, I look at today and forward, what help does strategic planning offer in making decisions? Is it still sensible to make traditional five year plans?

Some generic components of traditional strategic planning of course still apply, such as "identify core competencies" and "exploit unique or strong sustainable competitive advantages." But the planning in many respects will now focus not on where we want to be in five years, but what can be accomplished in the next 12 to 24 months. We and other large companies have a task that sometimes seems impossible - balance long-term, steady as-you-go patience with nimble, market-responsive entrepreneurship.

I was reading about a large Spanish fashion house last week. Rather than having four seasons of releases, determined months in advance, it manufactures and ships new designs in very small quantities weekly and then adjusts equally rapidly to what the customer is buying. They may release 11,000 designs in the course of a year, but with little wastage. They do it by having a combination of (1) high technology, low cost pattern and cutting operations and (2) a cottage industry of local sewing shops, neither of which is easy for competitors to mimic. Is it possible for a large publishing operation to be anywhere near that agile and market sensitive? Amazon.com in a way is aiming for this level of custom response - and it has yet to make a profit.

Last week I was talking with a colleague of mine with whom I will now be working in corporate strategy. We had last worked together on Elsevier Science strategies at the end of 1994. His first question was: what are our corporate strategic objectives now? Six years ago it was easy: go electronic. OK, now we've done that. Electronic publishing has moved from experimentation through beta to commercial operation. My original ScienceDirect dream team of six - which I admit was even then "supplemented" by 70 to 80 developers at Lexis-Nexis - has grown by an order of magnitude. It is far too early to call it a mature operation, but the strategic objective is no longer to "go electronic".

If I were setting guidelines for the next round of planning, they would include:

1. Build use. Our customers are buying ScienceDirect and like it. While use of our online services is growing dramatically, there is still room for more. Building use becomes an incredibly important goal. Perhaps it is a tactic rather than a strategy, where the strategy is to survive as an electronic journal service provider.

2. Technology is a tool, not an end in itself. We can fall in love with the technology and forget sound business analysis, as hundreds of languishing dot.coms will tell you. The question to answer is "Would this business proposition, product, idea make sense if you 'ignore' the technology?"

What does that mean? Is the technology a tool to accomplish other desirable ends or is it an end in itself? Take e-books, a topic about which I admittedly know very little. Recently, I was talking with a prominent German librarian, who is convinced e-books will never succeed. I am equally convinced their time is coming. Why? People both like and need to read. They're going to do it anyway. If you can make it easier, you can create a market. And palm-sized good readers now make it easy, for example, for frequent flyers to take 5-10 books with them on a trip. And how many parents wouldn't - for the right price - prefer to have their children tote one 8" x 10" x 1" device rather than a backpack full of 15 pounds of textbooks?

3. The right price. That comes back to business models. I said a few minutes ago that we aren't there yet when it comes to business models. That is certainly true for academic journals. The right model definitely isn't to give them away for free after six months, as is currently being pushed by some. But it also may not be wise to tie them up for nearly a century, as current copyright law effectively permits. We have to find new business models that work for all stakeholders. If I had to set only one strategic objective for the next few years, it would be to create the appropriate new business models for the electronic world. Keep the focus on the core business objectives and get the numbers right.

4. Don't get distracted. Our number one plan or strategy 15 years ago was explicitly to continue to do what we do well. How to do it might change, but not the core business. We said our mission was to facilitate scientific communication, not to publish journals. It's analogous to the well-known train versus transportation example. If we - any of us - forget that we are there to assist the scholar and the scholar is not there to assist us, we risk losing it all.

5. Build around the strengths of your staff as well as your publishing business. Your staff is your greatest asset and they walk out the door every night. My belief is that managers have an obligation to create an environment in which their staff can flourish. You shouldn't hire people and then sit back and see whether they succeed. Your job is to help make it happen - and when the special strengths (or weaknesses) of people become clear, play to their strengths. Don't be afraid to give them enough room to run, rather than only rope to hang themselves.

6. Final point - and remember I said at the beginning that I am a generalist, so don't say that I haven't been specific enough - in making decisions and setting strategies, **don't be afraid to act on the courage of your convictions, instincts or whatever else you call your cumulative experience.** But also bring in fresh viewpoints to challenge your thinking. My corporate strategy partner and I agree that there is a real danger in our working together again - we risk reinforcing each other's preconceptions and long-standing views. So we are going to hire a new person - a third leg on our stool - who will, hopefully, keep us honest by asking the hard questions. Why? Are you sure? Have you considered it this way? When you ask those questions - and we have a lot of very talented new people doing that throughout the company - you have less chance of falling into - or remaining in - a rut.

In the end, after 25 years at it, I am convinced that strategic planning per se can help only so far. It provides a certain discipline in the delineation of objectives, the definition of vision and the process of decision-making. Twenty years ago the basic strategy directive from our parent company was pretty simple: stay in non-inventoried, subscription businesses. Life is not so simple today. Maybe Chicken Little was, indeed, wrong and it wasn't the sky falling but opportunity knocking. What you want is management that thinks strategically at all times. Strategic planning should not be an annual exercise. It should be the day-to-day way of making decisions and doing business.

Thank you.