

Publishing Models for Internet Commerce

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Abstract

One of the biggest challenges facing the Internet over the next few years is the need to commercialize its activities in a way that is consistent with its history and its technology. In this regard, some of the most useful economic models come not from telephone service, cable television, or even the computer industry, but from print publishing.

Here, there is a similar global information marketplace with low barriers to entry, participation by millions of players, and a variety of coexisting economic models, ranging from free information supported by advertisers or other sponsors, subscriptions, and "by the glass" (or at least the bottle) information purchase. This market is further distinguished by a distinct lack of vertical integration: that is, the creation of intellectual property, manufacturing, sales and marketing, and distribution tend to be handled by separate entities, creating a rich ecology of entrepreneurial niches for both large and small players. Finally, the "editorial act"--the creation of products and brand identities that stand out from a sea of information based on distinctive points of view--will be a key to the development of future information services on the Internet.

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Business Models for the Net

The beauty of the net is its diversity: tens of thousands of newsgroups and mailing lists, tens of thousands of Web sites. No one owns it, no one controls it. Barriers to entry are low: because of the peer-to-peer nature of the underlying network technology, people who have access to the net as information consumers potentially also have access as information providers.

As we all know, though, the net is at a critical juncture, as big businesses of all kinds eye the net for its commercial potential. Will the net of the future have the same kind of diversity when industry titans want to turn it into a medium in which consumers do just that--consume, rather than participate?

It's clear that the net will be commercialized in one way or another. The choice we face is whether we adopt commercial models that reduce the net's vitality or ones that encourage it by providing incentives for even more of what it's good at. As businesses approach the net, we each see it through the filter of our past experience. So, perhaps:

- To a cable company, the net looks like thousands of channels for a couch potato to surf through. (And certainly early returns from the Web indicate that there is a market for this kind of passive infotainment, though I have my doubts about how long that stage will last.)
- To a software company, the net looks like an opportunity for an early foot in the door that leads to market dominance as users standardize on a few well known packages.
- To a big media conglomerate (television, newspapers, book publishing), the net looks like an opportunity to create "bestsellers" and dominant brands.
- To a small publisher, the net looks like an unparalleled opportunity to find and fill real user needs, to talk directly with customers and to create information products that serve them.

Each of these models has some validity. But of course, you can guess which of them I want to address. I published my first books almost ten years ago: two little 80 page pamphlets with a print run of 100 copies each. I now have over 100 books in print, which collectively sell millions of copies a year, and employ nearly 150 people in book, software, and online publishing.

The Business of Publishing

What I want to share with you today are some of the characteristics of the print publishing market that make me think it provides some of the best models for the commercial Internet I'd like to see developed:

- **Barriers to entry are low.** Especially with the advent of desktop publishing, almost anyone can produce a book, a magazine, a newsletter.
- **Niches abound.** Over 50,000 books are published each year in the U.S. alone. A major bookselling chain such as Borders keeps literally hundreds of thousands of unique titles in inventory. And despite major industry consolidation, and focus on a small number of bestsellers, there are still thousands of publishers, ranging in size from those who publish only a single book to those who publish thousands. What's more, there are about 3500 general circulation magazines and tens of thousands of newsletters and other limited circulation publications.
- **So do business models.** Books are sold "by the piece." They are also available for free in the library, though in limited circulation. Magazines and newspapers may be had for free (perhaps subsidized by advertising or membership), for a single-copy newsstand price, or for a recurring subscription fee. Prices range from a few dollars to hundreds or even thousands of dollars for specialized newsletters.
- **No one "owns" the market, or needs to.** A bestselling book might sell a million copies or so. The largest circulation magazine in the country, the AARP's membership magazine, has a circulation of about 7 million, *Reader's Digest* about 5 million. No one else comes close. It's possible to have a successful book

selling only a few thousand copies, a newsletter a few hundred, and a four color magazine a few tens of thousands.

- **The same technology is available to everyone.** No one publisher has a "proprietary edge." No one has a proprietary format. In some cases (consider Bible publishing), the publisher doesn't even have proprietary content!
- **There is a rich ecology of mutually successful players.** Authors sell to publishers. Publishers screen material, edit and produce it to add value, develop a marketing campaign, and build a network of distribution relationships to get the book to the ultimate consumer. Publishers may sell books directly to the consumer, through major retailers, and through wholesalers to smaller retailers whom I don't serve directly. Other wholesalers service libraries and corporations--some of whom also order directly. No one has to do it all, and there are opportunities for many players to work together, each making a profit by performing services in a value chain that stretches from the author to the reader.
- **Access is universal and non-exclusive.** You don't have to belong to the local bookstore to shop there, and even if you usually buy your books there, you can go across the street if Borders or Barnes & Noble has a better deal. Distribution is spotty--you can't find every book in every store--but with special orders, you can get virtually anything within a few days. You don't find many books that you can only buy through a special outlet.

By now, you're probably getting the drift. Publishing is a commercial market--a multi-billion dollar market--that looks a lot like the Internet as it is now (absent the transaction mechanisms), and as we'd like it to remain.

The software industry may support only a few thousand products, with only a few hundred being really successful. The television and movie industries may roll out only a few hundred products a year. It may take millions in capital to get a foot in the door. Companies struggle to create formats that will lock others out of the market and reduce choices for consumers. Are these the industries we want to look to when we think to shape the commercial future of the Internet?

What About the Content?

So far, I haven't said much at all about just what it is that publishers will publish on the net, and the services they will offer!

Let me start out with a disclaimer: publishing as a field has so many niches that any suggestions I make here cover only a fraction of the possibilities. It's easy to focus only on the most visible part of the market--trade publishing--and to forget vast areas that are invisible to the casual user.

But with that behind me, let me talk about two types of publications that we've been experimenting with at O'Reilly & Associates:

- Vertical market magazines
- Online reference books

We've based our work in these two areas on two distinct but overlapping observations about publishing:

1. On the net, "Information is plentiful. Trust and attention are scarce." (David Liddel) The development of brand identity is a critical part of publishing success in what you might call "commodity information businesses" where no one has a lock on proprietary content.
2. A reference work is essentially a "user interface" to a body of information. What does that interface look like online? How can a publisher who specializes in making sense out of complex topics do it better on the net?

Vertical Market Magazines

In an information glut, it is not content but context that is king. Someone chooses the *New York Times* over the *New York Post* not because of any kind of proprietary lock on content (though to be sure there is a role for scoops and special features) but rather because it has developed an editorial point of view that appeals to a particular class of reader. In a similar way, there is an enormous role for the establishment of "information brands" on the net--publications that have established relationships of trust with particular audiences.

(An important aside here: Trademark may turn out to be a far more important form of intellectual property protection for the net than copyright. An intellectual property-based brand or trademark is a kind of "standing wave" through which a changing body of content flows. A news magazine doesn't own the news it reports, it owns its name and the point of view associated with that name.)

A key part of what we established with GNN was a brand and a subscriber list. The actual content is valuable--but far more valuable is the relationship with the people who like the same kinds of things we like.

This relationship runs all through publishing--and not just magazine publishing. Publishing marketing is always affinity marketing:

"If you liked Steven King's last novel, you'll like this one even better."

"If you like Steven King, you'll like Peter Straub."

"If you like Steven King, you'll like these other books from the same publisher."

The most successful publishers always create brands whenever they can. It's certainly been a major part of O'Reilly & Associates' success.

For information products, a brand is far more than a trademark, though. It must also represent a consistent point of view, a consistent selection of information. The animal on the cover alerts a reader to the fact that he's picking up an O'Reilly book, but it's the consistent subject matter and treatment that makes many customers buy everything we publish.

In short, honesty and consistency are a key part of brand development. The surest way to dilute an established brand is to put it on a product that doesn't measure up.

I think that the importance of brands is already well recognized in the Web community, though often poorly executed, mainly because so many sites are plowing the same ground. There's only so much room for "the coolest site." Differentiation is key.

When trying to make my mark on the Web, I'd opt for a site with a narrow focus and an audience that can grow over time, rather than going for a big splash.

Even from a pure marketing point of view, a smaller number of more targeted readers may be worth more than a larger, more random group.

A good example of a targeted publication is the GNN Travel Center.

Having established a valued editorial point of view, publications have numerous opportunities for commercialization.

We originally adopted the advertising model for GNN because the technology wasn't there for anything else. We looked around at commercial "vertical market" magazines and newspapers such as *InfoWorld* and *PC Week* and realized that there were plenty of models in print publishing in which editorial content is distributed free to users while being paid for by advertisers. While Internet demographics of the kind advertisers depend on are still hard to come by, there are still significant advantages on the Internet:

1. Advertising is not limited to a single attention-grabbing headline or page; instead, there is room for extended presentation of useful information. And because the reader is free to turn away at any point, there is a clear incentive to the advertiser to provide information that the reader really wants.
2. There is clear feedback to the advertiser about what "works" and what doesn't, in the form of access logs. This feature tends to drive advertisers toward providing valuable content rather than hype. (Unfortunately, many of the people who followed our lead into net advertising haven't yet learned that lesson!)
3. Because of the limited information available via most other advertising methods, detailed product information must be provided "out of band" in a separate information transaction. Online, this information can be delivered immediately, at little or no incremental cost.

I think that the potential of the Web not for advertising but for information *fulfillment* has yet to be tapped. When you see Hilton Hotels at a catalog operations conference along with LL Bean and other direct marketers, you realize just how much potential there is for industries such as hotel chains, stockbrokers and others dependent on information fulfillment to move online.

4. The "information transaction" between advertiser and reader can culminate in a financial transaction, in which the reader actually orders (and perhaps receives) the product being shown.

Online Reference

We actually started our work in Web publishing with a plan for online books. However, because the technology wasn't available at that time for limiting or charging for access, we took a side trip with GNN into advertiser supported publications. However, our core business is still based on providing tutorial and reference materials that make sense out of complex topics. With some current projects, we're returning to those roots.

Before I describe those projects, let me say a few words about the nature of the problem.

Though it has not often been stated this way, what is a nonfiction book, a vertical market magazine, or a newspaper, but a user interface to a body of information too large to be contained in the work itself? The essential act at the core of non-fiction publishing has always been the design of information interfaces.

In our computer books, we find the selection and arrangement of material at least as important as the technical information we provide. The way in which we tell the story *is* the story. Even a technical book ideally captures a point of view--in our case, the point of view of an experienced user "talking straight" to one who is intelligent and eager to learn. We use various techniques to create the effect of a conversation between the person in the know and the one who wants to be. What is that but a user interface to information? The ranks of less successful publishers are filled with those who think that all you have to do is dump out an assemblage of facts.

Now, technologies such as the Web make it possible to create information interfaces at a much more powerful level. For example, rather than relying on an apparatus such as footnotes or bibliographies to refer to external sources, an online publication can take the reader directly to them. Additional types of data can be woven into the presentation, and much more sophisticated layering of information is possible.

While great strides have been made in the development of automated tools for searching for information, there are also tremendous resources available the "old fashioned" way, in which someone who has studied an area in depth creates a managed information space that selects from, models, and makes accessible the larger universe that is out there.

In a way, GNN's online Whole Internet Catalog is an example of this kind of publication. We had a kind of epiphany when Pei Wei first built a "demo" of the Whole Internet Catalog online using Viola (a precursor to Mosaic, and the first graphical environment for the Web). This wasn't just a demo. It wasn't just an online book. It was a user interface to the net itself!

Rather than turning someone loose to wander the Web at random, the Whole Internet Catalog is an environment for directed navigation. Sites are categorized, but more than that, they are evaluated. If a site is listed, you know it's worth your time. (We plan to take this approach even further in future Web publications.) Various other features in GNN serve the same purpose--to provide a more structured, more informative approach to what is a fairly wild information space.

But let me come back to online books. A good example of the kind of thing we plan to do in this space is found in a project we're doing to turn our *Encyclopedia of Graphics File Formats* into an online product.

The first edition of this book consists of three parts: a tutorial introduction to graphics programming concepts, a reference section consisting of four page abstracts or articles covering about a hundred odd different file formats, and a CD containing the full text of the specifications for those formats, plus sample images, software for converting and manipulating images, and so forth.

In the second edition, due out this summer, the text of the book will serve as a hypertext interface to the information on the CD, plus an expanded and continually updated online

center containing related information. As someone browses the managed space of the online book we've created, they are also indirectly navigating the larger information space for which it provides a front end. Rather than paging through thousands of pages of specifications, someone reads the "Cliff Notes" and dips down when they are at the right point.

When thinking about online books, publishers focus too narrowly on the content. Early online products have focussed on searchability and multimedia as key advantages over print products. But the Web shows a third key advantage of an online product: the creation of information interfaces.

I like to refer to a non-Web product in this context: Microsoft Cinemania. To a casual eye, this looks like a very similar product to Encarta, Microsoft's online encyclopedia. However, Encarta embodies the old model of the online book: a bounded body of information (however large). Cinemania, a collection of movie reviews, clips, and backgrounders, cries out to be a user interface that allows users of an online service to download the movies themselves.

In the old model, the information product is a container. In the new model, it is a core. One bounds a body of content, the other centers it.

I believe that there's a tremendous market for those in the publishing business to turn their experience in making sense of complex bodies of information to this new world of online information publishing. To me, one of the most exciting things about the Web, long term, is that it is the first environment that allows non-programmers to create user interfaces.

In the first stage of online publishing, authors, artists, editors and publishers could participate only by becoming programmers, or by assigning rights to their work to software companies. With the Web and its successors, by contrast, information professionals will create independent information products--user interfaces to information created not with software but with the tools they are already familiar--words, pictures and other familiar carriers of meaning.

(An aside to investment bankers: there was a time when software was unthinkable without hardware. The separation of hardware and software via open systems and the PC standard led to the creation of a new industry. The Web's separation of content creation from software should stimulate the birth of another new industry, in which online information products flourish on an open software platform.)

Paying for Online Books

The term "online book" seems to suggest a single purchase, akin to the purchase of a print book. However, because the net offers the possibility of ongoing update, the subscription may be a more appropriate concept. After all, the book itself is an ongoing service.

I eventually expect to see standalone online products sold by subscription; we're coming very close to the mechanisms needed to make this widespread and widely accepted. In the short term, hybrid print/CD/online products hold a great deal of promise. These products allow publishers to take advantage of their current methods of distribution, plus

provide consumers with a local cache of high-volume data on a CD, relying on the Internet for access to an even deeper or more current body of information. Purchase of the book/CD will entitle someone to access to the online center for a given period of time. Gradually, users will migrate to being direct subscribers of the online service.

Note of course that online products will also continue to be used for some time as "come ons" for other paying services. For example, a major revenue source from our online activities in GNN was the sale of our printed books. And an online service like AOL will doubtless provide many forms of online content as a way of attracting subscribers who are really paying for access not to that particular content, but just to the net itself.

But if there's one lesson to be learned from publishing, it's this: "Let the hundred flowers bloom. Let the hundred schools compete." (Mao Tse Tung) We are in a period of experimentation. We know some things that work; many more are yet to be invented.

Missing Pieces

One of the points I made earlier in this paper is that publishing (like any successful market) is an ecology, in which players feed each other in a complex web of relationships.

As an industry matures, you see two countervailing trends: one is towards differentiation, as certain players specialize in one layer of the business or another; at the same time, there is increasing consolidation, as certain players take a lead in a particular layer.

Right now, everyone is trying to do it all on the net: provide software, connectivity, content, transaction support, data warehousing, you name it. As the Internet matures, I expect to see a lot of the same kind of specialization occurring as we have in print. We'll come to recognize that the roles of author, publisher, manufacturer, distributor and retailer need not be rolled up into the same package.

(As an aside, part of what created the low barrier to entry for O'Reilly & Associates in print publishing was the existence of a lot of infrastructure that we didn't need to recreate. Few, if any, book publishers in America actually manufacture their own books any more. Only the largest sell directly to every bookstore. Most go through a network of wholesalers. And so on.)

Let me specifically address the issue of distribution.

Everyone's initial thought is that the net does away with the need for a distribution layer. After all, any site is accessible from anywhere else. This is clearly far from the case. First of all, net bandwidth isn't evenly distributed. Hosting of mirror sites and data warehousing are enormous opportunities. But perhaps more important than the physical distribution layer are the mechanisms for "attention distribution."

You can see this very clearly in the development of Web-based advertising. I believe that GNN was the first Web site to use advertising sponsors; in the two years since, we've seen the market go from incredulity ("You can't do that!") to arrogance ("Anyone can do that!") to a more mature realization that while anyone can put up a Web site, not every Web site will get an equal number of hits.

When there were only a few hundred or even a few thousand sites on the Web, all one had to do was to set up shop and let the visitors come. With tens of thousands, and soon hundreds of thousands of sites, it becomes clear that setting up a Web site is something like setting up a shop on the streetcorner outside your factory. You may get some visits from passers-by, and because distance is no object, you can easily invite in your existing customers, but the rest of the world may never know you exist. Companies try to get "word of mouth" by creating more and more innovative or controversial come-ons, but that will only go so far. As the market matures, you'll see a topography emerge in which certain sites stabilize as the focus or starting point for a certain type of user.

Many of these starting points will be content-based--the equivalent of *Sports Illustrated* or *Consumer Reports* or *The New York Times*--magazines whose (potentially overlapping) readership will make them stand out as an advertising crossroads for sites that want to reach that same audience. Just as happens now in print publishing.

But there is also a role for the "newsstand" and the "bookseller." These terms can be taken both literally and metaphorically.

As a publisher, I get questions from many bookstores about what will happen to them when publishers are setting up shop directly on the net. I ask back, "if I were a customer looking for a book on a particular topic, do you think I'd rather visit thirty publishers' Web sites, or a single bookstore Web site such as Computer Literacy, which carries books from every publisher and offers commentary and advice about how they stack up against each other. Again, think ecology. There is room for many complementary roles, room for many--symbiotes, competitors, commensals--at the same table.

The bookstore or newsstand may also be a good metaphor for the role of online services such as AOL, CompuServe or MSN. Where an "online bookstore" might provide context for purchasers of physical books, an online service should provide context for the many proliferating online products (both free and paid) that are now being offered on streetcorners around the Internet.

In many ways, selectivity is the inevitable "other face" of universal distribution. When you can get anything you want, how do you select what you want? At the end of the day, while a consumer can walk into a bookstore and order any book in print, he or she typically browses through a much smaller selection offered by the bookseller. In fact, one of the key grounds on which a bookseller competes (other than location) is the nature of the selection that it offers.

And information has a funny characteristic. Up to a certain point, more choice is better. Then the situation flips. The user gets overwhelmed, and less is more. Publishing shows us the role not of the gatekeeper (who allows only certain content to be published), but of the adviser, whether that adviser is a trusted columnist or reviewer in a newspaper, or a trusted clerk at the local bookseller.

Understanding this role will be important to the future of commercial online services. They currently provide several services rolled into one: online access, content, and billing. As online access becomes a commodity, they will compete there with a host of internet-only providers; on the pure network distribution layer, they may all give way to the telephone companies, for whom they are currently resellers. But they will retain a

major role as organizers of distribution--a newsstand, if you will, from which readers will select many popular forms of online content.

This is one reason, despite many misgivings in the online community, why AOL is a good fit with GNN. We share a common vision of providing context to Internet visitors, rather than turning them loose to surf alone. This will become increasingly important as people behind the leading edge join the Internet. The Internet's promise as a global communications medium won't be realized if it only makes room for the brave and the technically adept.

The role of online services as consolidators of billing is also greatly underestimated by many people entering the information business. While various forms of e-cash may simplify the transactions, the data processing load of a large business built on the back of many small transactions is nothing to sneeze at.

In my publishing business, I started out selling direct to the end user, and this is still a major part of my business. But many publishers won't sell at all to end users. They just don't have the systems in place to handle single copy orders. It's a heck of a lot easier to send a thousand books to Borders and get a single check. (It cuts the other way, too. A bookstore might prefer to buy from wholesaler Ingram rather than direct from the publisher, just because they can cut one order for books from a dozen publishers, and be hit with only one bill for that order.)

Again, this is a major area where the online services (and other bulk billers, like phone companies) can exploit some natural advantages of scale. One of the reasons for our recent sale of GNN to America Online was precisely to take advantage of their ability to manage billing and transactions for a subscriber base in the millions.

In the past, online services had to be publishers of proprietary content in order to attract consumers. In the new world of the Internet, they need to realize a new role as providers of on the one hand, back-end services such as hosting of online content, billing, and other related services to publishers, and on the other, of navigation, ease of access and other related services to users. In an open Internet environment, their competitive advantage won't be to lock in customers to specific bodies of content, but, much like retailers, to expose both walk-in and regular customers to a wide range of offerings in a comfortable environment.

Concluding Thoughts

What concluding advice might I have for would-be information entrepreneurs? Here are two core principles.

Give up the focus on gigantism.

The net isn't 30 million people, it's tens of thousands of overlapping groups ranging from a few people to perhaps a couple of hundred thousand at the largest. As I told one large publisher trying to figure out what to do about the Internet: "Yes, there is a billion dollar opportunity here. But you're going to find it a few million at a time."

Think niche. It's the net's greatest strength. In *The Whole Internet User's Guide and Catalog*, Ed Krol fancifully describes the problem faced by a pencil collector in a small town. It's not too likely he can find compatriots. But on the Internet, he may just be able to find the odd hundred like-minded nuts.

I can attest to the truth of Ed's analogy. Along with about 150 other people, I read a mailing list devoted to the work of Dorothy Dunnett, an obscure Scottish historical novelist whose stunningly intricate novels detail the birth pangs of business in the Renaissance.

This happens to be a free "publication." But if someone wanted to put up a Web site with access to some of the historical documents Mrs. Dunnett uses for her research, copies of museum portraits of the many real people who populate her novels, and other background information, I and other readers would gladly pay a subscription fee, if that's what it took to encourage the activity.

This is a key point. So far, the net has served its niches based on free, voluntary association. And that takes you a long way. But if you want even more, sometimes you have to pay, and are willing to do so, because you want someone to go that extra mile that you don't have time for yourself.

Perhaps the work of Dorothy Dunnett is too specialized a starting point--but the "small end" of publishing is a more reasonable end for many players to start from than the hope of launching the next *Time* magazine.

Returning to my own roots in print publishing, I will point out that I started out by publishing books on individual UNIX utilities at a time when any technical publisher who deigned to do a UNIX book was convinced that the market would only support broad overviews that would reach the largest number of possible consumers. Within a few years, my focussed books were outselling all the general titles, and changed the nature of technical book publishing by promoting what had formerly been thought of only as "professional" titles to the general public.

Don't base your business plan on proprietary advantage.

Don't get me wrong--there is plenty of competition in publishing--but it's all based on an open platform, and innovations always raise the floor we all dance on. Look for opportunities to reinforce the fundamentals of the Internet--participation, access, communication.

There are several different issues here. First is the familiar one of bandwidth: the cable vs. telephony model. In the cable model, there's large bandwidth to the consumer, and only enough coming back to make choices among the publisher's offerings. In the telephony model, as in TCP/IP, everyone is potentially a peer. Clearly, there are huge opportunities for phone companies who realize where their business advantage lies, and embrace the Internet wholeheartedly as the natural successor and extension to the telephone.

But despite the battle (which admittedly has died down over the past year) between the cable vs. telephony paradigms, the greatest threat to the original peer-to-peer Internet is probably the World Wide Web. While the Web was originally conceived as a groupware

product, the wide success of Windows-based browsers has created a network in which a great many of the participants are no longer able to provide information, but only to consume it.

Returning to publishing for guidance, it's clear that there's an enormous role for concentrators, selectors, and promoters of content. A good publisher defines itself by what it refuses to publish, as well as by the value it adds during the editorial process, and the visibility it gives through marketing and distribution. But never forget that publishing, at bottom, depends upon authors, and that the tools of authorship are profoundly democratic.

I am very concerned about the creation of a large Internet population that can not truly participate in a technology as central as the Web. Our development of low-cost Windows servers such as WebSite is not just a good business opportunity but an essential stake in the ground for the Internet. Everyone who has a Web browser ought to have (or have access to) a Web server.

Of course, this is not just a software problem, but one of connectivity. It's my belief that creating demand for universal access (or as near to it as we can come) with 7 by 24 online connectivity and reasonably priced bandwidth increments will enable an explosion of usage that will take the communications infrastructure into the next century.

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