From the Editor-in-Chief . . .

THE E-COMMERCE INVERSION

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Just about everyone seems to believe that business-to-consumer e-commerce (B2C) is a solved problem: you set up a Web site with the right forms, add a bit of security, establish accounts with a payment service and a shipper, maybe find a trusted server to certify your transactions, and you're ready to go. And in a way, everyone is right, because that's about all it takes to get started in e-business.

Depending on which variant you look at, even business-to-business e-commerce (B2B) might seem like a solved problem. Like B2C, B2B is simpler when your site sells goods from just one manufacturer or vendor and harder when your site sells goods from a number of manufacturers or vendors. In the latter case, complexity arises from the need to maintain a uniform representation for goods from different sources and match the information flows with the materiel flows.

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While B2B and B2C e-commerce share similar problems, many people believe that B2B is much harder than B2C. As evidence, they point out that there are several general B2C sites but none such B2B sites. B2B sites sprout mostly in vertical niches, dealing, for example, with lab equipment or agricultural chemicals. Setting up a B2B site is deemed harder today because all e-commerce requires the ability to structure and present information properly to users. In typical B2B domains, there is far more complexity to represent and display than in typical consumer domains. A standard office supplies catalog will have many more entries than an ordinary clothing store catalog—there are probably more kinds of notebooks, for example, than men's shirts. Thus B2B domains require more features and impose more subtle constraints.

Just the Numbers

Part of the increasing interest in B2B e-commerce is due to widely cited studies indicating that it will generate revenues exceeding those of B2C by an order of magnitude or more.

I don't question this view for the near term, although fundamentally it is puzzling, and one has to wonder how long it will hold. Whatever companies buy from each other is eventually sold to consumers or is used in the process of developing something else for the consumer market. The only exceptions would be public works and military expenditures, which don't directly result in consumer spending. Except for these two categories, consumer spending should exceed business spending. If B2C revenues don't match those of B2B, then conventional commerce must be picking up the slack. This means that a lot of businesses will participate in B2B but sell their goods the old-fashioned way. Thus, they will lose an opportunity to tailor their products to the needs of individual customers.

A Temporary Lead

If B2B appears destined to become the dominant variety of e-commerce, it isn't because B2B is inherently special, it is simply because—for a reason I describe below—B2C will need time to catch up. Will people ultimately choose to make most of their purchases offline, or will B2C lag only for the short run? I am betting on the latter. Although I hesitate to predict when B2C will take the lead, I will say that it will do a lot better than most believe.

The challenge here is one of making e-commerce technology more sensitive to users' needs.

Paradoxically, the fact that B2B is more demanding also explains why it is winning over B2C in the near term. B2B requires far greater structure in terms of features and constraints than B2C, but once this structure is captured, automation is greatly simplified. For B2B, the requirements (in terms of features and constraints) are clearer primarily because business purchases were already more or less streamlined for handling by a bureaucracy. B2C remains inherently ad hoc. You can buy any shirt that catches your eye, but you'd better be sure the notebooks you order for your research colleagues are the ones they say they need.

We have to figure out how to give B2C users the level of interaction electronically that they experience in traditional shopping. When we do, B2C activities will drive and essentially subsume B2B processes, offering enough flexibility to respect the whims of individual users while exploiting back-end B2B automation.

This then is the e-commerce inversion: in the medium to long term, B2C will go from being easier to implement than B2B to being recognized as the harder, more general problem. Only when the more general B2C e-commerce problem is solved, we will know we have arrived in the true Internet age. ∎