THE PRICE OF BEING A FORTRESS

No nation is an island – if it cares about its technological future.
BY DAVID H. HOLTZMAN

The great ports of the world always pick up a little cultural lint from the outside world. Some treat their trade zones like hothouses, cultivating a funky mix of the exotic and the indigenous that sinks its roots back into the culture at large. Others treat them like quarantine zones, confining new thoughts, ideas, and technologies as if they were communicable diseases.

Social anthropologist Claude Lévi-Strauss dubbed societies open to trade 'hot cultures' – they warm quickly to the new, and assimilate change. By contrast, 'cold cultures' are insular, expending a great deal of energy to maintain central control.

Both, of course, are connected in an increasingly networked world – today there are as few Bhutans as truly borderless economies. The question is how. Countries on the hot side of the spectrum maintain their own sense of cultural identity and self-governance while gaining the benefits of the larger distributed culture. They are part of the global archipelago, taking fullest advantage of the network effect that comes from collaboration. Nations that put up too many regulatory boundaries – cultural or technological – run the risk of going cold. They become semi-isolated digital islands, losing the economic and intellectual advantages that come from free trade and access to the technology that drives it.

This loss is cumulative, potentially creating an irrevocable, long-term gap. And that gap has as much to do with the free flow of technology within societies as between them. Ironically, Fortress America, despite its status as a great trading power, runs the risk of becoming such an island.

Technology innovation builds in layers; like a coral reef, the dead act as the foundation for the living, a conceptual structure for future innovation. Citizens of archipelago nations grow up with a far larger conceptual structure. They have a global sense of what's technologically feasible – reducing engineering problems from 'How can we do this?' to 'How did they do this?' – and therefore waste less time getting things done. Digital islanders, on the other hand, are cut off from outside innovation; forced to invent from scratch using local materials, even their most 'modern' technology might seem at home on a desert island.

Greater exposure also gives archipelagos more sophisticated consumers. In digital islands, as the gap widens in consumer education, adoption of new products slows commensurately. Slower adoption rates imply less early-stage revenue, which means less investment capital available for new projects. And there's the slower time to market due to regulatory hurdles.

The technology at the foundation of the archipelago accumulates in another pragmatic sense. New digital communication protocols, capabilities and conventions start out as optional but soon become expected and ultimately mandatory. Try setting your browser to refuse all cookies and you'll quickly notice you can't use online shopping carts anymore. If you live in a country where digital rights management systems are required in order to listen to mp3s, then you won't be able to use devices from Japan or Europe that don't have them. As the consequences of these decisions build up, digital island consumer markets will not be large enough to justify the additional parallel development cost and they will cease being primary consumer markets for new products.

Often in the name of self-defence, digital islands try to fully regulate the flow of content through their virtual boundaries in the same way that they police physical goods – by interdiction. This means imposing physical checkpoints that can be seized if necessary, and forcing all incoming and outgoing information to pass through them – just like the customs zone in an airport. Think of the domain name system, or DRM-regulated music. Law enforcement and customs agents of these nations need to be able to examine all digital content, therefore they have to outlaw strong encryption. And they must legislate absolute and unique authentication of every person, machine and network – because the lawyers need someone to serve papers on, otherwise how can they enforce their rules?

Our country is at a crossroads. There are those on the left who want to regulate privacy and identity information, and those on the right who want to control intellectual property. Whichever side prevails, either may ultimately lead to the same endgame – an America technologically isolated from the free flow of the digital archipelago. Imagine how we're going to feel when the rest of the world sees us as desert islanders building a television set from coconuts. Technological simplicity is a high price to pay for 'security'.

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