



BY RICK NELSON, EDITOR-IN-CHIEF

Evolution and innovation

What drives innovation, and can we harness the driving force to innovate our way out of our current economic difficulties? Next month, we at *EDN* will be asking you to help us identify the most innovative products and most innovative people of 2008. As I stated in June in our *EDN Innovators 2008* supplement, however, innovation is easy to recognize after the fact but difficult to schedule in advance.

In an effort to help create an environment conducive to innovation, we will continue this year to bring you profiles of innovators—in special supplements in March and June and in our “Voices” column in every other issue. Our hope is that you use some of their insights.

Meanwhile, Krisztina Holly, vice provost for innovation and executive director of the USC Stevens Institute for Innovation at the University of Southern California, has an interesting take on innovation in a Dec 16, 2008, Huffington Post blog item, “The Innovation Ecosystem.” Had she been a venture capitalist at the end of the Mesozoic Era, she writes, she would have placed her investments with the adaptable mammals—not the dominant dinosaurs of the time, which were on an evolutionary path to extinction.

She then cites efforts to avert mass extinction of US auto companies. Should the government work to prevent this possible collapse or stand aside? Holly doesn’t take a clear stand on this question. “Determining the right path is not easy, and either way the results will be painful,” she writes. What interests her is how we can foster innovation to prevent the likely collapse of a key industry from recurring.

She believes that the rules of nat-

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ural evolution are applicable to economically sustainable innovation. Holly writes, “Although I am the director of a leading university institute for innovation and a serial entrepreneur myself, in some ways I’ve learned as much about business life cycles by observing nature on my weekend mountain-bike rides. What I’ve seen

is that a thriving ecosystem, whether in nature or economics, emerges from an evolutionary culture that nurtures diversity, doesn’t artificially pick ‘winners,’ and embraces failure early and often.”

She praises entrepreneurs, “the diverse and future-oriented thinkers that will advance our economy despite times of struggle. This group gives us the mutations—the radical changes that enable groundbreaking ideas to enter the ecosystem if they are worthy.” But she adds that big companies have a role as well: “They help amplify—through acquisition, licensing, or even copying—the impacts of successful ideas.”

The danger, Holly says, is in prematurely picking winners—before evolutionary mechanisms indicate the optimum approach. She further explains, “Death is inevitable in an ecosystem, and furthermore it can be healthy. It’s this brutal process of failure that prunes out the weak from the herd.” She quotes John Seely Brown, a visiting scholar at USC and the independent co-chairman of the Deloitte Center for Edge Innovation, as saying that failures “form the fertilizer for the next generation.”

Holly notes the irony of the fact that the decay of doomed Mesozoic life resulted in the formation of petroleum, “which has in turn fueled the internal combustion engine and today’s failing auto industry.” She concludes, “I look forward to seeing what today’s failures will fertilize.”

At *EDN*, we will be tracking innovation in the electronics industry for you throughout the coming year.**EDN**

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