

reflections

Bozos on the bus

At a recent meeting on the subject of electronic money, host John Perry Barlow looked over the audience of assembled experts. "We're all bozos on this bus," he began.

The words have stuck with me as an apt metaphor for a lot of stuff that is happening in the world of technology these days. Two words are operative here: "bozos" and "bus." In case there is any doubt about who the bozos are—well, that's you and me, I'm afraid. We keep getting made into bozos by the explosive emergence of whole new fields like electronic commerce in which none of us has any experience or relevant prior knowledge.

Dan Lynch, a founder of Cybercash, was quoted in the media as saying, "We don't know what we're doing." He then added, "Neither does anyone else." Refreshing candor from a very smart bozo.

Being bozos, we are relegated to the role of mere passengers in the back of a bus that is speeding recklessly toward somewhere or other. The bus is being driven by someone up front whom we can't quite see. Worse yet, we're not even sure what our destination is supposed to be.

Quite a few years ago I drove for the first time to the recently opened Newark Airport. A dense fog enveloped the new access highway, and before long I couldn't even see the road in front of my car. I was becoming worried about making the plane, which under the circumstances was pretty ridiculous. As if to illuminate my worry, the impenetrable air began to glow increasingly from a mysterious internal source of light. I stopped inching ahead, and got out of the car to find out where I was.

The first surprise was that my feet touched wet grass; I wasn't even on a road. I walked in the direction of increasing illumination, like one of those near-death experiences you read about. I was holding my hands out in front of my face to ward off any obstacles. This was fortunate because I was smack in the headlights of a large Greyhound bus, also stopped in the middle of the field. A disembodied voice came out of the fog, complaining angrily, "Where's the (expletive deleted) road?" Presumably, this was the bus driver. I wondered what the passengers must have been thinking.

I feel a certain kinship with those marooned passengers when I speculate on technology these days. Managers talk glibly about "road maps" of the future. This is fashionable, in case you didn't know. I get Delphi surveys that project the road ahead by polling all the sightless passengers in the back of the mystery bus. Famous, rich people write books about this road ahead. But the glow of illumination from these sources is like that from my Greyhound bus in the fog. Go toward the light if you will, but be warned; no one knows what's coming in this chaotic world.

Being a bozo means, for example, that you're one of the vast majority who failed to foresee the emergence of the World Wide Web. This is certifiable mass incompetence in fogbound navigation, because in retrospect the Web was an obvious extension of existing technology—no rocket science there. Now it's a scary thought that other Web-like things may be hiding right around the corner, or lurking slightly beyond the reach of the headlights in the fog ahead. So hold your hands in front of your face as you muddle aimlessly along.

There is, however, good news, too. First, you have a lot of company; no shortage of bozos seems imminent. Moreover, once something like the Web happens, the playing field is level. With no one but fellow bozos to compete with, everyone has a clean slate. It seems, for example, that anyone who can spell "webb" today has gone into the Web site consulting business. (Obviously, I'm not in that business.) There are no incumbent experts, so anyone can hang out a shingle and pronounce themselves expert. As has been said, in the land of the blind the one-eyed man is king.

For professional engineers, this reduction to bozoism is frightening. Technology is so enabling that anything that can be dreamed can be accomplished. Just get a handful of chips, do a lot of hacking instead of sleeping, and cut a few deals. All it takes is the dream, and anyone can dream. You don't need a degree in engineering, and you don't need a career in design experience from the Paleolithic era to do things in this newly empowered world.

Nicholas Negroponte observed recently that when he started the Media Lab at the Massachusetts Institute of Technology, his competition was Bell Labs, Bellcore (looking at me), Stanford, and the like. But now, he said, his competition is 16-year-old kids. I know what he means, and I resonate to Nicholas' feeling. I see young people starting companies to do Net-things. They all aspire to be the next Mark Andreesen (of Netscape fame). They all have ideas, energy, and enthusiasm, and

they have little patience for classical research. No time for that! There are things to do, a world to be changed, money to be made, and no pre-existing experts. No one around except bozos—how lucky for them!

The rich and famous debate what will happen. Will there be a \$500 Netphone, for example? More to the point, once it is inevitably made, will anyone buy it, or will it be another Newton or PCjr.? Will the emerging use of Java downloadable applets mean that Microsoft's

dominance in software platforms is broken? Will Internet usage continue to double annually? Will electronic commerce take off? Will Moore's law continue to drive the electronics industry? Will Apple continue to offer an alternative solution? Road junctions ahead, all of them, and you can find a bozo—sorry, expert—to espouse any direction through this maze that you choose.

I've never actually done this, but I've read about mystery trips that people sign up for. You show up at a train, bus, or plane, and you are whisked off to some unpredictable but fascinating place. It sounds like fun, and being a bozo on the back of the bus can be fun, too. In fact, it's a much more interesting world today than it was in the days when I thought I was up front driving. Chugging the ordained highways in the sunshine with my itinerary clipped to the visor now sounds boring to me. Never mind the fog; step on the accelerator and enjoy the uncertainty.

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