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THE BIG ISSUE

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NICHOLAS NEGROPONTE

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Nicholas Negroponte



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BEEN DIGITAL--WHAT'S THE NEXT BIG THING?

Comparing the future with the past is a relatively simple way to understand what will happen next in the digital world. People quickly grasp the fact that a book, newspaper, or magazine (like this one) is made up of bits--bits that then become ink, squeezed onto dead trees, and shipped around the planet. Forbes ASAP alone sends more than 230 tons of paper to more than three-quarters of a million places for each issue. The embodiment of bits in paper pulp occurs because today paper is still a better display medium and, therefore, offers a better human interface than any computer. But that will change. We won't be the Atoms Family forever. The pattern of digital life will keep surprising us, as it already has with phenomena like disintermediation, consumer cartels, and electronic word of mouth.

So, what is the next Big Thing? What atoms will be turned into bits and really change the world? For me the answer is simple: cash. What we know today as coins and paper currency will become bits. I don't mean credit or debit cards or accounting systems of that kind. I mean stored value, bits on your hard disk or in your electronic wallet. They won't have the look and feel of money--not as we now know it--but will have all of its nonphysical

properties and more. Anonymity, universality, and the capacity for small payments are just a few benefits. Cash is only a small part of our monetary system today, but reflect, for a moment, on a world where government doesn't print money, others do. Take the balance of trade, which is really an artificial number, and imagine one that is just not computable. Or think of payment systems not in dollars, but in micropennies. Digital cash makes digital commerce real.

One of the most common assumptions about the digital world is that it isn't a safe place. True? False. The virtual world is a far safer, more private, and less dangerous place than the real world. Note, I didn't say better. When people tell me they would never type their credit card number into the Internet, I try to suppress a laugh. These same people gleefully recite it over the telephone or hand their credit card to a lascivious-looking waiter, who disappears with it for a few minutes.

Give me a break. The world of bits is far more secure; we just have to want it to be that way. As a start, governments must drop silly laws against cryptography--its use or its export. Drug dealers and terrorists are not waiting for permission to use it, yet many citizens are deprived of it. Privacy is a big deal, yet what stands between you and digital privacy is not technology but policy. The White House agrees that this is one of the toughest issues it faces. Some countries, such as France, are just pigheaded about the matter and have made it illegal for their citizens to use encryption.

When (not if) this changes, a lot will change with it, including money. I will then be able to earn unique, serialized, digital coins that I can spend anywhere, redeem any way I want. Mom-and-pop organizations will issue money, and banks, as we know them, may cease to exist. A whole new economy will evolve.

One of my favorite examples stems from an electronic game under development by Rocket Science Games. It is a Dungeons and Dragons-style role-playing game that is given away free and run over the Internet at nominal or no cost. So, how does Rocket Science make any money? Here's how. You find yourself in a beautifully rendered medieval castle, face to face with a green, smoke-puffing, long-toothed dragon. You are (actually your avatar is) dressed in a terry-cloth bathrobe, which is fine for stepping out of a hot bath or shower but crummy for fighting dragons. Then you notice some nicely polished knight's armor hanging on the dungeon wall. Guess what? You can rent it for five cents and fend off the monster.

Cute. But more than cute. This is just one tiny example of a totally different economic model from anything we have been able to consider before. It costs roughly twenty-five cents to process a credit card charge and a dollar to handle a check. So they don't work. But remember the old penny candy? Cash does work, but now you need to spend digital coins. And that's a big deal. Imagine a business where a billion people pay you two cents a day. That would be about the size of Microsoft.

Yes, the question I'm asked most often is the theme of this issue: What's next? The Internet caught so many people by surprise that many of these same people now want to know if there is another surprise around the corner. Just as we start to understand networks will we, for example, bump into DNA computers, extraterrestrial communications, or a new kind of memory that grows by watering it? Maybe, maybe, and maybe. But for sure there is one big thing just around the corner and I believe that is digital money.

Nicholas Negroponte is a founder and director of the MIT Media Laboratory and the Interdisciplinary Research Center, which focuses on the study of future forms of human communication. His most recent book is *Being Digital*.

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