RIDING THE GIANT WORM TO SATURN: POST-SYMBOLIC COMMUNICATION IN VIRTUAL REALITY
Jaron Lanier by Morgan Russell

Excerpt from an interview with Jaron Lanier by Morgan Russell

From my point of view, the most important thing about virtual reality is "post-symbolic communication." I have not been joined by throngs of others who believe this at this point, but I expect to be any minute now.

This far in our adventure here on the planet, we have been interacting mainly within a plane that we know of as the physical world. The physical world has some interesting characteristics, the most important of which is that it is shared. Each of us has his own unique perspective and yet it is a perspective on a place that we can reliably use as a channel among ourselves. The fact that we can communicate at all in the physical world is something utterly mysterious. But, nevertheless, we do it. The physical world also has this very disturbing property, from a philosopher's point of view, of being very stubbornly "there" all the time. This is simply inexplicable, but seems reliable.

The physical world unfortunately has another property which is, that it is hard to do things in it. This is something we first learn in very early childhood. We discover, much to our intense humiliation, that not only are we forced to live inside the physical world, we are made of it and we are almost powerless in it. We are not born as Superman, able to fly around and pick up a building and turn it upside-down as much as little children may try to act like that. We are actually extremely limited. We can't get to our parents easily, we can't get to our food easily, we need help. The earlier back into my childhood I remember, the more I remember an internal feeling of an infinite possibility for sensation and perception and form and the frustration of reconciling this with the physical world outside which was very very fixed, very dull, and very frustrating — really something like a prison. As we grow up, we sort of overcome the frustration of the physical world and call ourselves adults. We discover in early childhood what programmers in the United States would call a "hack" that we use to cope with the difficulty of doing things in the physical world. That hack is called "symbols." A symbol is basically a way of using the parts of one's body that one can move as fast as one thinks and feels to refer to the rest of the universe that one can only change more slowly, if at all. These are one's hands and mouth and tongue and to a lesser extent, the rest of one's body. By the way, my definition of "the body" is: it is the part of the world that you can use as a tool of communication, it is the part that you can change. It's possible to interpret one's activities, one's quick activities as references to all the other things that one can't do quickly. So, for instance, I move my mouth and say the sentence, "I am going to ride a giant worm to the rings of Saturn," and you can understand what I mean. But in order for me to actually genetically engineer a giant worm that could survive in a vacuum, get it out to the rings of Saturn, and have it not fall though them, and so forth, would call for considerable effort. It might take a century or more. So, the use of symbols is essentially an efficiency trick that allows us to share things that would otherwise be inaccessible because of our powerlessness in the physical world.

Now, I want to stress that this situation isn't completely negative. By using symbols we have developed a marvelous faculty. And the symbols themselves have taken on a life of their own, and are very beautiful. They are filled with poetry and puns that would not have existed had we simply been very powerful, had we been able to make these giant worms in the first place. But, nevertheless, it is interesting that virtual reality now provides us with an alternative to go back and explore what might have been, had we had that power in the universe and had developed this alternate stream of communication I call post-symbolic communication. It's

not in any way opposed to symbols. That would be absurd. We have evolved to the point that our brains have grown simply in order to cope with symbols in the form of language.

The first prerequisite for post-symbolic communication is shared virtual reality. The second is an ability to create a world quickly and easily while one is in virtual reality. This ability doesn't exist yet, but I believe it will. This involves having some method that allows a person to programme a virtual world in all aspects of form and behavior as quickly as talking about it. This would yield a situation that might be described as a shared, intentional waking dream in which everything is possible and everything is relatively easy and everything is shared. This situation has simply never existed before. We have never had this interesting intersection of realities. This is a combination of the objectivity of the physical world with the unlimitedness and the uncensored content normally associated with dreams or imagination with the spontaneous composability of language.

One comment about the objectivity and sharedness of virtual reality. Virtual reality fits into exactly the same niche between people that is normally taken up by the physical world. No more, no less. So, the types of interactions that people have in the physical world are acceptable in virtual reality.

What we have in virtual reality is the ability to directly make up shared reality instead of talking about it. Instead of simply describing things you make them. You make the big worm and take it to Saturn. This is actually a very simple idea and most of the practical, commercial applications of virtual reality actually rely on exactly this idea. For instance, when an architect uses a virtual reality to show a client buildings, the client says: "Well, let's move this window over," and simply moves it. That is post-symbolic communication. They are actually in the building, and no longer relying on models or animations or specifications or blue prints. They are dealing with a direct experience not a representation of an experience. This way of communicating without representation, with actual experience itself, is for me the reason why virtual reality is important.