Frank wrote this article for the February/March 1980 issue of The Exploratorium magazine, which was on the topic of play. That same issue was dedicated to the memory of Jackie Oppenheimer, Frank’s first wife and co-founder of the Exploratorium, who died of cancer as the magazine was going to press. It might have seemed inappropriate for that commemoratory magazine to deal with such a light-hearted topic, but the consensus at the Exploratorium was “Jackie would have liked that.” The article captures an important aspect of Frank’s attitude toward work and learning.

When we were planning this issue of The Exploratorium magazine some months ago, we thought of taking photographs of a crane operator knocking down a wall with a huge steel ball. It seemed to us that anybody who had ever seen this activity would like to get a hold of that swinging ball and play with it for a while. We asked our staff photographer to photograph this activity in San Francisco; we would also talk with one of the operators to see if he ever had this sense of playfulness that we associated with the wrecking ball. Immediately after these discussions the photograph of the Minneapolis grain elevator appeared in the San Francisco Chronicle. The photograph confirmed our notion that it was indeed a playful activity, and we contacted the Minneapolis ball-and-crane operator. Contrary to our expectations, the operator perceived what he had done as getting publicity for his firm.

Despite the operator’s perception of his own activity, we see it as something which matches our conception of playfulness—that of using a prop of society out of the context of its designated purpose, which in this case is to knock things down. The imaging of a face on a
grain silo certainly seems like play even though it was justified as publicity.

This example illustrates the difficulty in distinguishing adult work from play. The distinction can become very blurred when people get paid for play. One of the more productive employees of the Exploratorium said to me some years ago that he felt confused because what he was doing much of the time in the machine shop was just playing around with no particular purpose. He didn’t see why he should be paid for doing that, even though his playing around sometimes resulted in the birth of wonderful and instructive exhibits: exhibits whose major purpose or form was in no way conceived at the outset of the playing around. My brother, when he was a young man, said his teaching made him feel that he was giving somebody their money’s worth, whereas almost none of his research calculations had anything to do with anything. It seemed hard for him to justify his being paid for just doing research.

Whether it is exhibit-building or research or sculpture, so much time is spent just playing around with no particular end in mind. One sort of mindlessly observes how something works or doesn’t work or what its features are, much as I did when, as a child, I used to go around the house with an empty milk bottle pouring a little bit of every chemical, every drug, every spice into the bottle to see what would happen. Of course, nothing happened. I ended up with a sticky grey-brown mess, which I threw out in disgust. But much research ends up with the same amorphous mess and is or should be thrown out only to then start playing around in some other way. But a research physicist gets paid for this “waste of time” and so do the people who develop exhibits in the Exploratorium. Occasionally though, something incredibly wonderful happens.

But if people get paid for playing, does it then become work? The recognition of adult play can become very difficult. In some instances, the playfulness is obvious. For example, there are times while driving that I keep time to radio music with the accelerator and the brake to produce a quite remarkable motion of the car. It’s true that this activity is manifestly playful. It uses the automobile out of the context for which it was designed, but it is also an extremely trivial example of adult play.

The problem of talking about adult play becomes difficult because there are some people who are never playful in their work or their studying. I once asked Bob Karplus, a professor at U.C. Berkeley, a question that I
had asked many people without getting a very satisfactory answer. I asked, “Are there any things which a young person must learn before it is too late to learn them?” There has been much emphasis on how early a child can learn to write or to spell or to add, but my question seems not to have attracted much attention. There may very well not be anything which one has to learn before it’s too late to do so. But Bob answered, “Maybe people have to learn how to play before it’s too late.” He said he had observed college students over the years and there seemed to be a large group of them who never played in their studying or in their life, whereas at the other end of the spectrum an equally large group of students were continually playful. The ones who were never playful never seemed to learn how to be playful. It was an interesting answer, I thought, and would bear some looking into, for it is clear that the kind of playing that is so fruitful in art and science and in getting accustomed to life or change is an extremely vital aspect of all human endeavor. If the ability to play is inadvertently denied to a large part of the population, it would be worth finding out why.

Certainly, many Exploratorium exhibits have been born of play and have been built so that they can be playful for the people who come here. But even in this enterprise, I’ve noticed that as the staff gets larger and the institution grows older, it becomes more and more difficult to get people to be playful. Exhibits are now usually made from scratch out of raw stock through elaborate machining and welding, whereas in the early days we improvised by finding something that was made for some other purpose and using it to construct an exhibit. We even set out purposeless exhibits such as a vibrating timer and called it an Adjustable Plaything. But it’s been a long time since we’ve set out an exhibit with no particular purpose in mind.

I can only conclude that it must require an inordinate amount of self-discipline for adults to remain playful in their work. It seems to me that although a lot of people do play games together, being genuinely playful is frequently a solitary kind of activity with private justifications that are socially incommunicable. One can never manage to justify any particular act of playfulness, but only recommend the value of playfulness in general.