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# The parable of the farmers and the **Teleporting Duplicator**

Imagine a world where food is cheap and freely available, thanks to the amazing Teleporting Duplicator. What could go wrong?



Food in its raw, unpackaged state. Photograph: Sarah Lee/Guardian

### Chapter 1

Once upon a time, there was a planet much like our own. Billions of people lived on it, and they all needed food. Many people had time-consuming jobs that prevented them from growing their own, but most of them were able to eat because there were farmers.

The farmers grew food for everyone, and it was carried around the world by distributors. Although each farmer only grew one kind of food, they were able to eat many different foods, because every farmer had access to what others produced.

The distributors were keen to ensure the quality of the food they distributed, so they set up a system where farmers reviewed each others' food, rejecting any that wasn't good enough. Some distributors were considered better than others, because they rejected more of the food that farmers gave them, distributing only the very finest.

The system wasn't perfect, but it was good. Farmers needed the distributors, both to get their own food out into the world and to get food from other farmers. And the distributors added value to the food that the farmers produced: they wrapped it in nice packaging.

Admittedly, not everyone got the food they needed: in every country, some people starved, and in some countries most people did. But on the whole, it was a good system - and it was the distributors, with their expensive networks of trains and ships, that made it all possible. Everyone wanted the same thing: the people wanted food, the

farmers wanted to get it to them, and the distributors earned their living by making sure it happened.

#### Chapter 2

One day, a wizard invented a marvellous machine that allowed food to be teleported almost instantly from one place to another. More amazing still, the food would still be in the first place as well as the second. The same food could then be teleported to a third place, and a fourth – as many as you liked. Not only was the Teleporting Duplicator an astonishing machine, it was also very cheap. Soon, millions of people all over the world had them.

It was a wonderful time. With the new machines, anyone who came upon a particularly delicious or nutritious morsel of food could send it to all of his friends. Farmers could send their newly harvested crops directly to other farmers, even those on the other side of the world. People in far-off countries where farms were unproductive could have the food they needed.

Everyone could see that the Teleporting Duplicator had changed the world forever, and that no one would have to go hungry ever again. A new golden era of peace and prosperity seemed assured.

### Chapter 3

"Wait a minute," said the distributors, "what about us? We're a valuable part of the supply chain. We add value. It would be much better if we continued to distribute food the old way, with trains and ships."

But everyone immediately saw that this was silly. The old technology was obsolete, the new was better in every way. Facing an outcry, the distributors saw that they wouldn't be able to go on as before, pretending that Teleporting Duplicators didn't exist.

"You can't just cut us out of the food distribution process", they said. "It would be much better if farmers and ordinary people were not allowed to operate Teleporting Duplicators. We'll operate them for everyone, and sell the duplicated food."

Some of the farmers were angry about this. "We have a way to distribute food now," they said. "It's fast and cheap. Now that our food can be freely duplicated, it would be wrong to limit access by letting you charge a fee for it. Food isn't scarce any more: it has great value but very little cost. We have to pass that value on to the world."

But the distributors replied: "You can't just go distributing our food, and ..."

"Wait a minute," said the farmers. "Did you say your food?"

"Yes," said the distributors. "We told you: we add value. That makes it ours."

"How do you add value?"

"Well, for one thing, we provide the peer-review that assures the quality of the food."

"We do the reviewing!" shouted the farmers, really quite annoyed now.

"Well, yes. But we organise it. We choose the reviewers and send out the food samples and interpret the reviewers' comments, and make the decision to accept or reject. We edit the food."

But this was not true either, and the farmers knew it. It was the farmers themselves who did all that, volunteering their effort to the distributors to help each other do their best

work.

"Ah, yes," said the distributors. "But we appoint the people who choose the reviewers and interpret their comments. So, you see, we do add value. And that's not all: we also wrap the food in nice packages. So, you see, all you farmers are really doing is providing raw material. It's us distributors who make it into an actual food product, so logically it's our property. Only we should be allowed to decide who gets the food and on what terms. After all, we have to recover our investment and provide value for our shareholders."

## Chapter 4

When they heard this, the farmers realised that the distributors truly had no credible claim to own the food. For a moment it seemed that food would become universally available and free.

But then the distributors said something very clever. "How will people know that your food is the best unless they see that it's distributed by the best distributors? You'll never get ahead in the farming business if people can't see that the best distributors accept your food."

Then the farmers became very quiet and thoughtful. All of them knew that their food should be made freely available to the world. But they also wanted to get better farming jobs at better farms. To do that, they needed to improve their reputations. They couldn't do that if they used the Teleporting Duplicator to make their food freely available. They could only do it by giving it to the most prestigious distributors, and allowing the distributors to sell carefully protected and controlled copies of the food to people who could afford it.

The farmers were sad because they wanted everyone to have food. But what could they do? Letting all their food be freely replicated without the aid of a top distributor was professional suicide.

And so things went on much as before for the distributors, except that they didn't have to spend money on expensive trains and ships. And things went on much as before for the people with little or no food: they lived, and more often died, just as they had before the invention of the Teleporting Duplicator. And somewhere far away, his head in his hands, the wizard wept.

## Addendum

Opponents of open access academic publishing may say that this parable is hyperbole. It is, but only in one respect. When people do not have access to food they die quickly. When they don't have access to science they die more slowly.



The parable of the farmers and the Teleporting Duplicator... http://www.guardian.co.uk/science/blog/2012/feb/10/par...

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ont feel that was overlooked. The farmers (academics) do the peer-review. Not the distributors (subscription-fee based publishers).

"Most academic papers are vastly improved by the interaction." Most certainly, and it's the farmers that add this value.



**MikeTaylor** 10 February 2012 10:45AM

@StevenPenfield: "you overlook one of the most important roles of the peer review process which is not just to provide quality assurance, but also to add real improvements to quality.

Often the peer review process can take a mangy old vegetable

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