

## **Assignment 12: Beyond 'Couch Potatoes' and an Exercise in Learning for Understanding**

**source:**

Fischer, G. (2002) *Beyond 'Couch Potatoes': From Consumers to Designers and Active Contributors*, in FirstMonday (Peer-Reviewed Journal on the Internet), at [http://firstmonday.org/issues/issue7\\_12/fischer/](http://firstmonday.org/issues/issue7_12/fischer/).

**Role distribution: analyzers and summarizers** for assignment 12:

1. WEST, DAVID
2. ALLEN, SCOTTY
3. BALASUBRAMANIAN, NATHAN

The "analyzers and summarizers" can do their work individually or jointly

**due: Monday, March 7, 2005**

1. producers: please submit by **9:00am** to the class website → please be on time, so the "analyzers and summarizers" can do their work!
2. **analyzers/summarizers**: please submit by **3:00pm** to the class website

**Briefly discuss the following issues:**

1. what do you consider the main argument of the article?
2. do you agree or disagree with the main argument? give a answer based on **your own** experiences?
3. enumerate in which situations
  - 3.1. you acted as a designer/ active contributor
  - 3.2. you acted as a (passive) consumer
  - 3.3. situations in which you believe you should have acted differently

**An exercise in learning for understanding — pick one of the following problems and try to solve it**

1. Will the Flight Time Change?
  - 1.1. An airplane is flying from Denver to Frankfurt and back (round trip) with its own average speed of 500 miles/hour (for all trips). On its first trip, there is a no wind in both directions. On its second trip, going from Denver to Frankfurt, there is a tail wind of 100 miles/hour. Returning from Frankfurt to Denver, there is a head wind of 100 miles/hour.
  - 1.2. Question: will the flight time be the same or different (if different: shorter or longer for the trip with wind)?

2. The Rope around the Earth
  - 2.1. There is a steel ring around the earth at the equator touching the (flat) earth everywhere. We extend the steel ring by 1 yard in length and form a concentric circle around the earth (i.e., the distance between earth and steel ring is the same everywhere).
  - 2.2. Question: Will a small cat be able to sneak through between the earth and the steel ring?
  
3. How Old are the Children
  - 3.1. A person visits a family with 3 children and would like to know the ages of the children. The mother tells the visitor: "Their ages multiplied with each other is 36. Their age added is equal to the number on the house."  
The visitor goes in front of the house and looks at the number (and she knows now the number). She comes back and says: "I still do not know the age of the children." The mother then tells her: "The oldest son plays the piano". Now the visitor knew the age of the children.
  - 3.2. Question: How old are the children? (note: the ages of all children are integers!)

**answer briefly the following questions:**

1. describe your solution (if you found one) or why you were unable to find one?
2. what did you learn solving (or thinking about) the problem?
3. what kind of knowledge was most important for solving the problem?
4. are (or would be) computers helpful in solving these problems?