# Designing Matter: Ethics and Technological Design

Deborah G. Johnson March 15, 2005

### **ETHICS:**

HAS TO DO WITH HUMAN BEHAVIOR,
HUMAN ARRANGEMENTS, HOW
INDIVIDUALS TREAT ONE ANOTHER, AND
HOW SOCIETIES, COUNTRIES OR
COMMUNITIES ARE ORGANIZED

### **EXAMPLES OF MORAL PRINCIPLES:**

- ACCORDING TO EMMANUAL KANT, FOR EXAMPLE, WE MUST ALWAYS TREAT ONE ANOTHER AS ENDS AND NEVER MERELY AS MEANS
- UTILITARIANISM WOULD HAVE US MAXIMIZE GOOD CONSEQUENCES WHEREIN THE FOCUS IS ON CHOOSING ACTIONS (HUMAN ACTIONS) THAT WILL PRODUCE GOOD CONSEQUENCES FOR ALL OTHER HUMAN BEINGS

### **ETHICS:**

• ALSO, OFTEN REFERS TO RESPONSIBILITIES OR OBLIGATIONS ASSOCIATED WITH SPECIAL ROLES AND ESPECIALLY PROFESSIONAL ROLES

### **ETHICS:**

## MIGHT BE THOUGHT OF AS A LENS THROUGH WHICH HUMAN ACTION AND INTERACTION CAN BE VIEWED

### **TECHNOLOGY:**

MATERIAL OBJECTS/ ARTIFACTS

• INERT AND, THEREFORE, NEUTRAL

### THE QUESTION

SINCE ETHICS IS ABOUT HUMAN ACTION AND TECHNOLOGY ISN'T HUMAN AND DOESN'T ACT, HOW COULD TECHNOLOGY HAVE ANYTHING TO DO WITH ETHICS?

- 1. CASES THAT STARTED ME OFF THINKING ABOUT ETHICS AND TECHNOLOGY AND CONTINUE TO REVERBERATE IN MY THINKING
- 2. A START AT SORTING OUT THE ISSUES WHAT MIGHT BE THOUGHT OF AS THE BEGINNINGS OF A THEORY OF ETHICS AND TECHNOLOGY
- 3. THE IMPLICATIONS OF RECOGNIZING THAT ETHICS AND TECHNOLOGY ARE INTERTWINED

### **PARTI**

### THE BRIDGES OF LONG ISLAND

L. WINNER, "Do Artifacts have Politics?" The Whale and the Reactor: a Search for Limits in an Age of High Technology. (Chicago: University of Chicago Press, 1986), pp. 19-39

## WHAT DO THE BRIDGES OF LONG ISLAND SHOW US?

### IS THE INTERNET A DEMOCRATIC TECHNOLOGY?

D.G. JOHNSON, "Is the Global Information Infrastructure a Democratic Technology?" Computers & Society 27 3 (1997): 20-26.

### FOUR MEANINGS OF VALUES IN TECHNOLOGY:

METAPHYSICAL

SUPPORT

MATERIAL/DESIGN

SYMBOLIC/EXPRESSIVE

### WHERE DOES THIS LEAVE US?

IT WOULD SEEM THAT WE BOTH ACKNOWLEDGE THAT THERE ARE VALUES IN TECHNOLOGY AND AT THE SAME TIME DENY IT; THIS NEEDS EXPLANATION.

### **PART II**

ARE THE VALUES 'IN' THE ARTIFACT (THE MATERIAL OBJECT) OR 'IN' THE SOCIAL PRACTICES AROUND THE ARTIFACT.

### STS LITERATURE

A REJECTION OF TECHNOLOGICAL DETERMINISM.

TECHNOLOGICAL DETERMINISM = THE VIEW THAT TECHNOLOGY EVOLVES ACCORDING TO A LOGICAL, LINEAR PATH DICTATED BY NATURE AND THEN DETERMINES THE KIND OF SOCIETY WE HAVE

### STS LITERATURE

- RECONCEPTUALIZATION OF THE VERY NOTION OF TECHNOLOGY
- TECHNOLOGY IS NOT JUST ARTIFACTS; IT IS ARTIFACTS TOGETHER WITH SOCIAL PRACTICES, SOCIAL RELATIONSHIPS AND SYSTEMS OF KNOWLEDGE
- FOCUS ON SOCIO-TECHNICAL SYSTEMS

### THE ARTIFACT IS THE ABSTRACTION

### "DUMPING IN DIXIE"

### **CONCLUSION OF PART II**

TECHNOLOGY IS A PART OF THE MORAL WORLD, NOT JUST BECAUSE IT FACILITATES AND CONSTRAINS BEHAVIOR, BUT BECAUSE IT "IS" SOCIAL RELATIONS AND IT SOLIDIFIES (REINFORCES/ LEGISLATES) SOCIAL RELATIONS AND THIS GOES TO THE HEART OF MORALITY

### **PART III - IMPLICATIONS**

 STOP BELIEVING THAT TECHNOLOGY IS NEUTRAL

• STOP BELIEVING THAT TECHNOLOGY HAS NO ROLE IN OUR MORAL AND POLITICAL LIVES

#### **PART III - IMPLICATIONS**

 ACKNOWLEDGE THAT ENGINEERS ARE NOT JUST MAKING THINGS, THEY ARE BUILDING SOCIETY

• TECHNOLOGICAL DECISION MAKING SHOULD BE MORE PARTICIPATORY/ DEMOCRATIC