USING COMPUTERS: A DIRECTION FOR DESIGN

By: **Terry Winograd and Fernando Flores**
Presented by: Ashish Singal

Introduction

- proposes that the rationalist tradition in AI must be replaced by a Heideggerian approach
- Heideggerian : **present-at-hand** and **ready-to-hand**, are used to describe various attitudes toward to things in the world.
- This methodology is commonly known as the “language/action” perspective.

- Essence of intelligence is to act appropriately when there is no simple pre-definition of the problem or the space of states in which to search for a solution
- Analytical Computational models will never allow computers to attain human-like intelligence (inexpressible subtleties in human cognition)

Ontological Approach

- An *Ontology* is some set on concepts. This approach provides a philosophical approach that allows you to consider any system, at any level.
- *Ontological Design* examines the fundamental human communications underway in situation. It is not so much a design methodology as a design philosophy, and one that can be used to validate/test any system design and implementation.

Readiness to hand

- In any given context, a systems "readiness to hand" is its "obviousness" - how "ready to hand" the system functions appear.
- “Hammer" is something that is ready-to-hand.

Breakdown

- A system breaks down when some unexpected event occurs.
- It is the "unexpectedness" that is critical, a system yielding behavior that the user could not possibly predict or reasonably understand.
- For example, an inexplicable error message after some internal error - it is not the error that is the problem, but how it is handled and communicated to the user.

Blindness

- Whenever a system is developed concepts are introduced to aid the understanding. This is a crucial aspect of problem solving, building abstractions to simplify and rationalize the system.
- However, this leads to blindness when the concepts and abstractions selected are not sufficient to accurately describe the problem.

Some concepts….

- There are no clear problems to be solved
- A business is constituted as a network of recurrent conversations
- In creating tools we are designing new conversations and connections
- Design includes the generation of new possibilities
- Breakdown is an interpretation