Increasing the design's effectiveness lies in understanding "readiness-to-hand" and anticipating "breakdowns"

is the core concept to — *summarized as*

"The ongoing interactions constitute a double or reflexive movement or entanglement: while we, as humans, design our world, our world acts back on us and designs us."

"Humans design in the sense that they deliberate, plan and scheme in ways which prefigure their actions and makings. In turn, humans are designed by their designing and what they have designed."

"Design is far more pervasive and profound than is generally recognized, even by practitioners of design, who ought to be aware of its significance." [2]

Willis outlines the main claims of ontological designing by saying "ontological designing is a way of characterizing the relation between human beings and life-worlds." [2]

The ontology of design

involves

When people are engaged with a successfully designed tool, The action

is in

Readiness-to-hand

is related to

Thrownness

is a quality of

Being-in-the-world

is unconcealed in

Human Action

An unstable condition where

"Objects are taken for granted without explicit recognition or identification." [1] So, they are transparent.

People are always acting unreflectively.

Eg. "To the person doing the hammering, the hammer as such does not exist. It is a part of the background of readiness-to-hand that is taken for granted without explicit recognition as an object. It is part of the hammerer's world, but is not present any more than are the tendons of the hammerer's arm." [1]

A state where "people are engaged in acting within a situation, without the opportunity to fully disengage themselves and function as detached observers." [1]

in this situation:

— People cannot avoid acting.

— People cannot step back and reflect on their action.

— All effects of actions cannot be predicted.

— People do not have a stable representation of the situation.

— Every representation is an interpretation.

— "Designing and the outcomes of designing are a fundamental human action." [2] So, design is not describing the situation but creating it.

"The interpreted and the interpreter do not exist independently: existence is interpretation, and interpretation is existence." [1]

Therefore "meaning is fundamentally social that cannot be elicited through mental representation." [1]

has potential for

is based on

Breakdown

can be defined in

A negative way

presents

Problems

reduce

Shared unarticulated contexts

permit actions and cognition to merge.

"It is the interrupted moment of our habitual, standard, comfortable being-in-the-world." [1]

Eg. Doing the hammering, the hammer breaks or the handle slips from grasp.

comprise

Backgrounds

occurs in

The Pre-understanding

or

are related to

"Problems always arise for human beings in situations where they live, in other words, it arises in relation to a background." [1]

Mutual concerns of all participants.

mean

"All participants are responsible for the consequences of how their acts will be understood within the tradition." [1] There exists the patterns of interaction that occur within a shared background.

It is meaningless to talk about the existence of objects and their properties in the absence of mutual concerns. [1]

A result of an individual's experience within a tradition. Which is part of the background.

is

— Inevitable.

— The basis for the analysis of understanding "readiness -to-hand".

— The prejudice, cannot be fully understood.

A positive way

serves as

Cognitive function

"It reveals to people the nature of their practices and equipment, making them present-to-hand to us." [1]

Objects and properties are not inherent in the world, but arise only in an event of breaking down in which objects and properties become present-at-hand. [1]

makes

Objects and properties become

Present-at-hand

means

— Objects and properties become opaque.

— "A detached reflection on the external world." [1]

— A phenomenon to be considered, represented, and manipulated.

Eg. Its "hammerness" emerges if the hammer breaks or slips from grasp, or if there is a nail to be driven and the hammer cannot be found. [1]

forms

can be accessed through

New Design

New design can be created and implemented only in the space that emerges in the recurrent structure of breakdown.

"A design constitutes an interpretation of breakdown and a committed attempt to anticipate future breakdowns." [1]

can be accessed through

Rationalistic orientation

exists in

expands

Practical understanding

— Is based on the assumption that the detached theoretical point of view is superior to the involved practical viewpoint.

— Accepts problems of objective existence and objective analyses.

"The existence of both the objective world of physical reality and the subjective mental world conceals its central social role." [1]

Putting detached theoretical understanding into a context of cognition as praxis - as concernful acting in the world. [1]

Heidegger insisted that "people have primary access to the world through practical involvement with the ready-to-hand, the world in which we are always acting reflectively." [1]
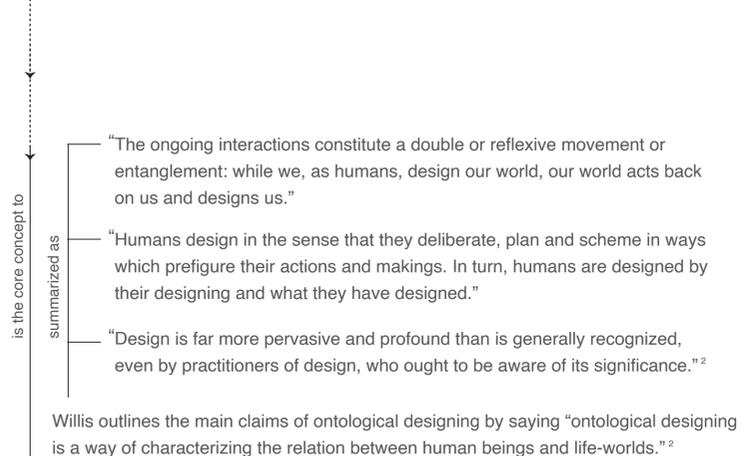
Gadamer said "Prejudices are biases of our openness to the world." [1]

creates

Blindness

"Detached contemplation can be illuminating, but it also obscures the phenomena themselves by isolating and categorizing them." [1]

The classic hermeneutic circle

In which the meaning exists independently of the act of interpretation, to get rid of all prejudices and produce an objective analysis.

to

The fundamental principle of human understanding on the nature and his state

Reference:

[1] Winograd, T., and Flores, F., (1986). Understanding Computers and Cognition. Part I Theoretical Background, pages 3-77

[2] Willis, A.-M. (2006). Ontological designing – laying the ground. In: Willis, A.-M., ed. Design Philosophy Papers, Collection Three. from https://www.academia.edu/888457/Ontological_designing

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