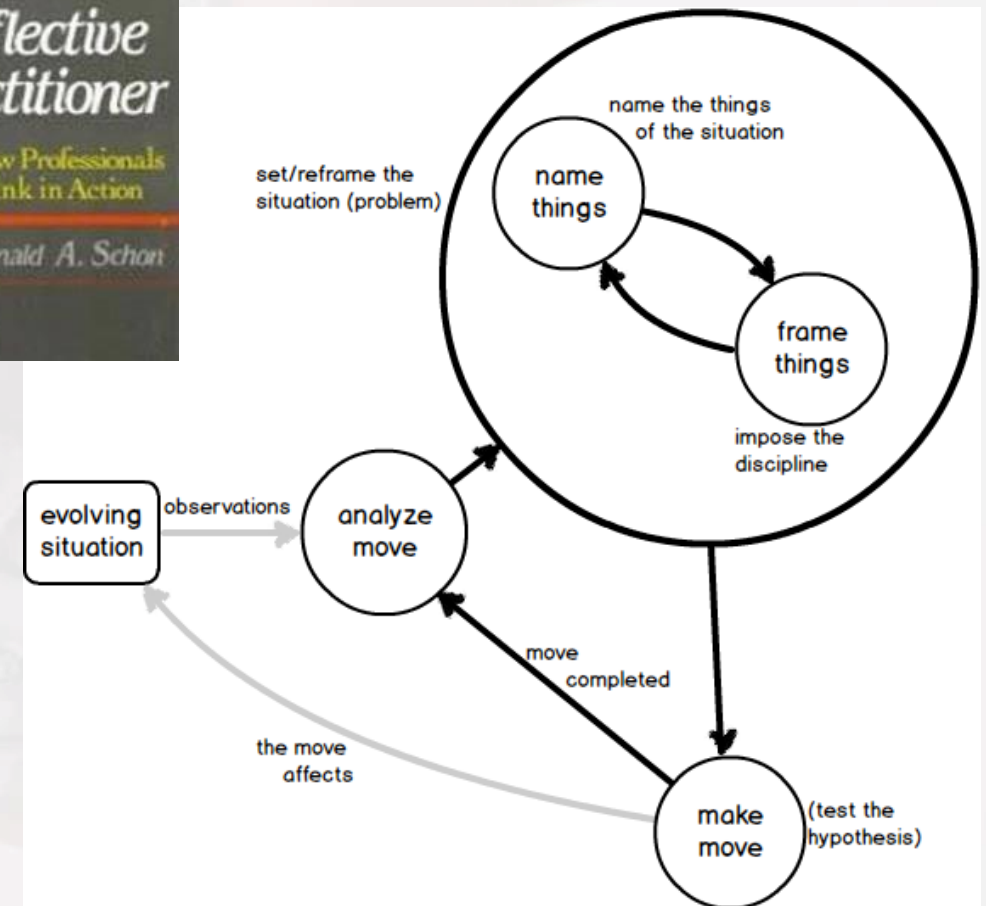
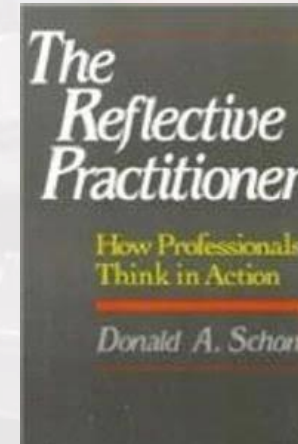




bruk av er noe man kan
om brukskunnskap

bruk: reflektert praksis

- å reflektere mens man gjør noe, vurdere underveis hva og hvordan aktiviteten best kan utføres (*reflection-in-action*)
- å reflektere etter at man har gjort noe, vurdere resultatet for å forbedre seg (*reflection-on-action*)
- å bli en god praktiker = øve & lære



bruk: handlingsbåren kunnskap



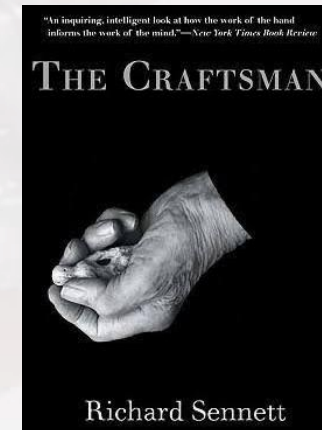
Moe, S. (2009). Another dance - about embodied knowledge, i Falk, E. og Wallin Weihe (ed.) Living Crafts. Hertervig Akademisk, s. 101-105

CHAPTER 19

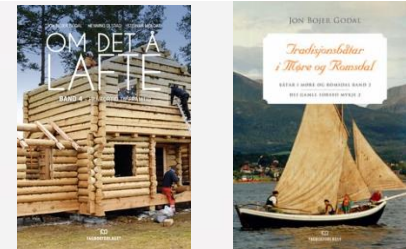
Another dance – about embodied knowledge

SIRI MOE

- = kunnskap i & gjennom handling
- kunnskapen er «bygd inn» i bevegelsene
- know-how & know-that



"Håndverk er allmenndanning" med Jon Bojer Godal



bruk: handlingsbåren kunnskap 2



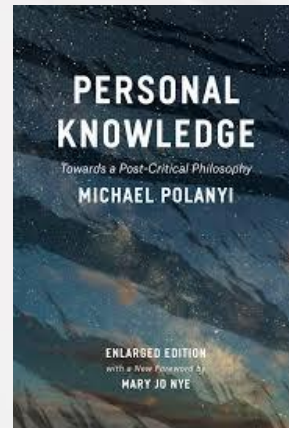
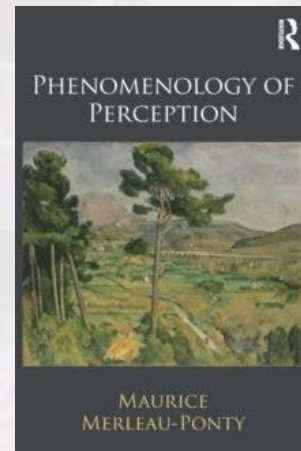
Moe, S. (2009). Another dance - about embodied knowledge, i Falk, E. og Wallin Weihe (ed.) Living Crafts. Hertervig Akademisk, s. 101-105

CHAPTER 19

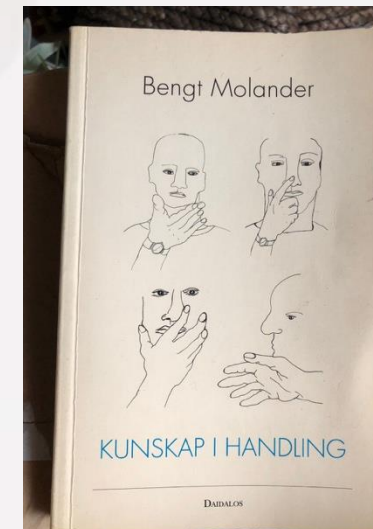
Another dance – about embodied knowledge

SIRI MOE

- kunnskapen er «bygd inn» i bevegelsene
- kroppen får kunnskap om verden gjennom sansene (*sensation & perception*), særlig proprioception
- bevegelse er eksistensielt



- taus kunnskap (*tacit knowledge*)



bruk: handlingsbåren kunnskap 3

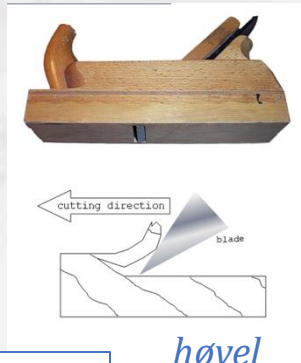


Moe, S. (2009). Another dance - about embodied knowledge, i Falk, E. og Wallin Weihe (ed.) Living Crafts. Hertervig Akademisk, s. 101-105

CHAPTER 19

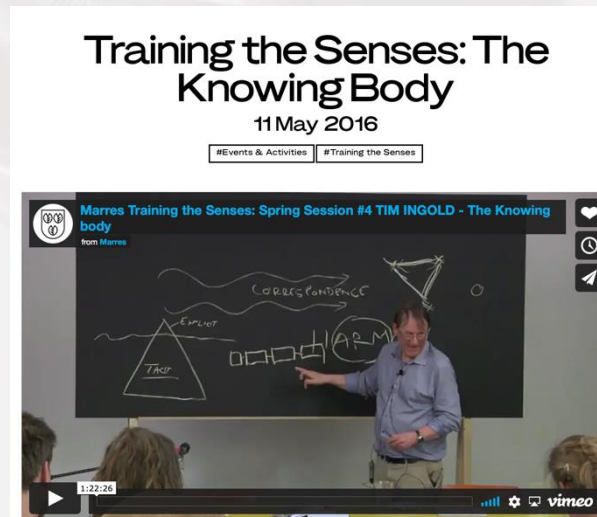
Another dance – about embodied knowledge

SIRI MOE



høvel
(Wikipedia)

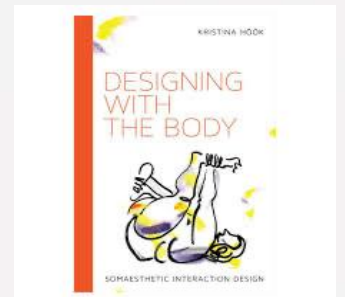
- kunnskapen er «bygd inn» i bevegelsene
- kroppen får kunnskap om verden gjennom sansene (*sensation & perception*), særlig proprioception
- bevegelse er eksistensielt
- rytme



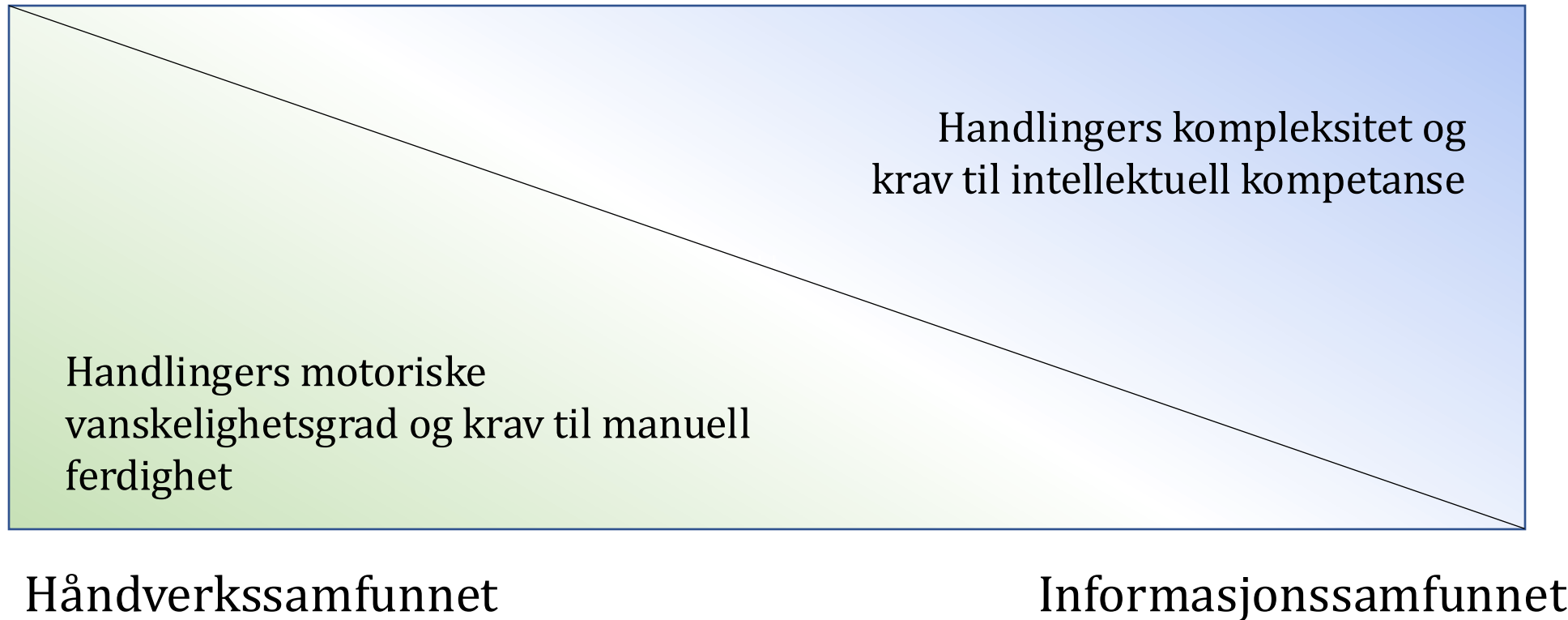
Date: May 11th
Time: 8 – 10 PM

<https://www.youtube.com/watch?v=OCC0kOMHTG4>

læring & avlæring, kroppslig læring



Samfunnsutvikling og grunnkompetanser



Begge de to typene samfunn er kunnskapssamfunn, men det ene handler mest om avanserte praktiske ferdigheter, det andre om krav til teoretisk kunnskap

digitale redskaper og maskiner

1. digitale representasjoner

- data(-typer)
- modeller

2. programutførelser

- algoritmer

Vi bruker også kroppen for å operere en datamaskin, men handlinger og aktiviteter er mer abstrakte



kilde noroff blogg

Kunnskap som bruksbetingelse (digital kompetanse)

Hva betyr «det digitale» for bruken?

- abstraksjoner & representasjoner
- toppen av isfjellet: skjult kompleksitet
- autonome systemer (der vi ikke selv utfører operasjoner)

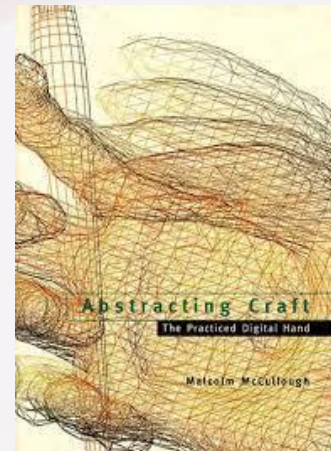


digitalt håndverk: Wroblewski om interaksjonsdesign

David Wroblewski (1991)

The Construction of Human-Computer Interfaces Considered as a Craft.

1. a craft is any process that attempts to create a functional artifact without separating design from manufacture
2. the distinction between tools and materials dissolves
3. creating software is sometime a craft. Creating a human-computer interface is usually and perhaps always a craft



digitalt håndverk

Wroblewski forts.

- A designer makes things. ... Typically, his making process is complex. There are more variables ... than can be represented in a finite model. (s. 9, Schön-83: 78)
- the modern designer (is) one who struggles to change systems whose behavioral properties are often too complex to fully understand, who must resort to *in situ* experimentation merely to uncover those properties, and whose store of technical knowledge is useful only when the playing pieces have been named, the problem has been framed, and the major design decisions have been made. (s. 9)
- The categorical breakdown between tools and materials is complete in the crafting of software. ... programs have the unique property of serving as the raw materials for new programs (s. 10, Jones-88)
- designed artifacts cannot be understood apart from the situations in which they are used ... even small details can have substantial effects on the usefulness of an artifact ... such details emerge from the situation of use, and hence can be neither predicted outside of that context nor meaningfully abstracted from it (s. 12, Carroll-90: 322)

Klein & Hoffman

- nybegynnere og eksperter løser problemer ganske likt
 - top-down & bottom-up, iterativ testing, metaforer & analogier
- nybegynnere ser det som er i situasjonen mens eksperter ser også det som **ikke** er i situasjonen
- eksperter har mer erfaring og organiserer erfaringene slik at de vet hva som er typisk og ikke (*typicality*)
- eksperter kan identifisere viktige kjennetegn (*distinctions*)
- eksperter kan forstå prosessene, hva som er årsaker & virkninger, dvs. hvorfor det er blitt som det er blitt og hva som typisk skjer videre (*antecedents & consequents*)
- fravær av ting:
negativity bias & invisible cues

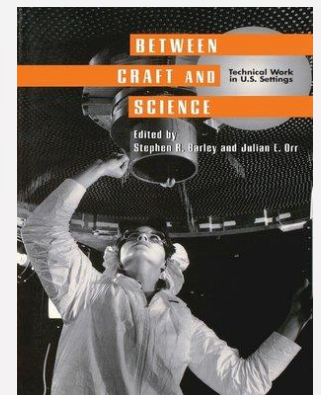
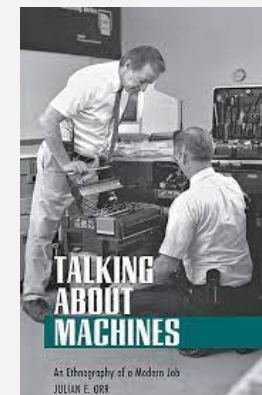
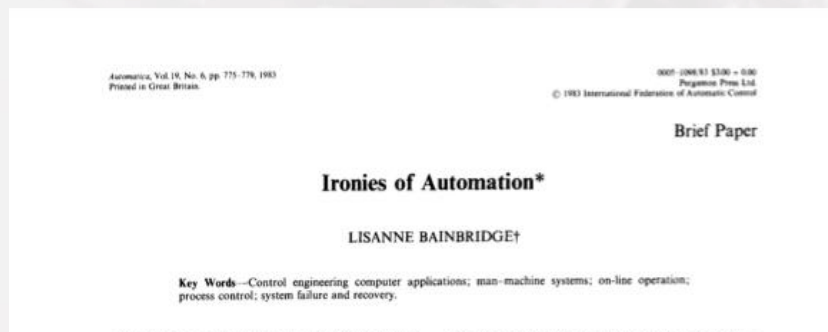
Klein, G. A., & Hoffman, R. R. (1992). Seeing the invisible: Perceptual-cognitive aspects of expertise. In M. Rabinowitz (Ed.), *Cognitive science foundations of instruction* (pp. 203-226). Mahwah, NJ: Erlbaum.

9 Seeing the Invisible: Perceptual–Cognitive Aspects of Expertise

Gary A. Klein
Klein Associates Inc.

Robert R. Hoffman
Adelphi University

"SEEING" AND "SEEING BEYOND"



nivåer av kunnskap: novise -> ekspert



Skill level	Components	Perspective	Decision	Commitment
1. Novice	Context-free	None	Analytical	Detached
2. Advanced beginner	Context-free and situational	None	Analytical	Detached
3. Competent	Context-free and situational	Chosen	Analytical	Detached understanding and deciding. Involved in outcome
4. Proficient	Context-free and situational	Experienced	Analytical	Involved understanding. Detached deciding
5. Expert	Context-free and situational	Experienced	Intuitive	Involved

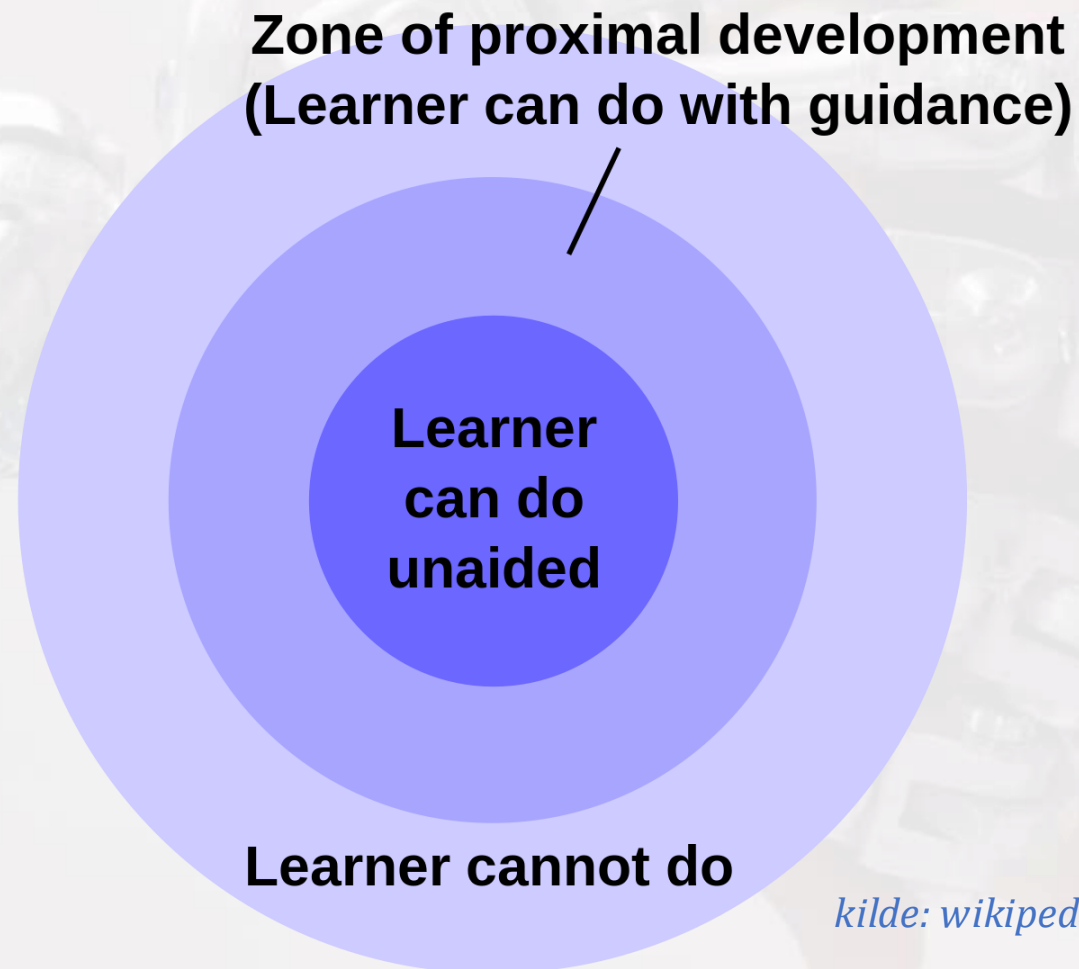
The five stages of skill acquisition framework by Dreyfus and Dreyfus [31].

<https://360pmo.com/>

Stuart E. Dreyfus (2004). *The Five-Stage Model of Adult Skill Acquisition*.

Stuart E. Dreyfus & Hubert L. Dreyfus (1980). *A Five-Stage Model of the mental Activities Involved in Directed Skill Acquisition*.

zone of proximal development



kilde: wikipedia