

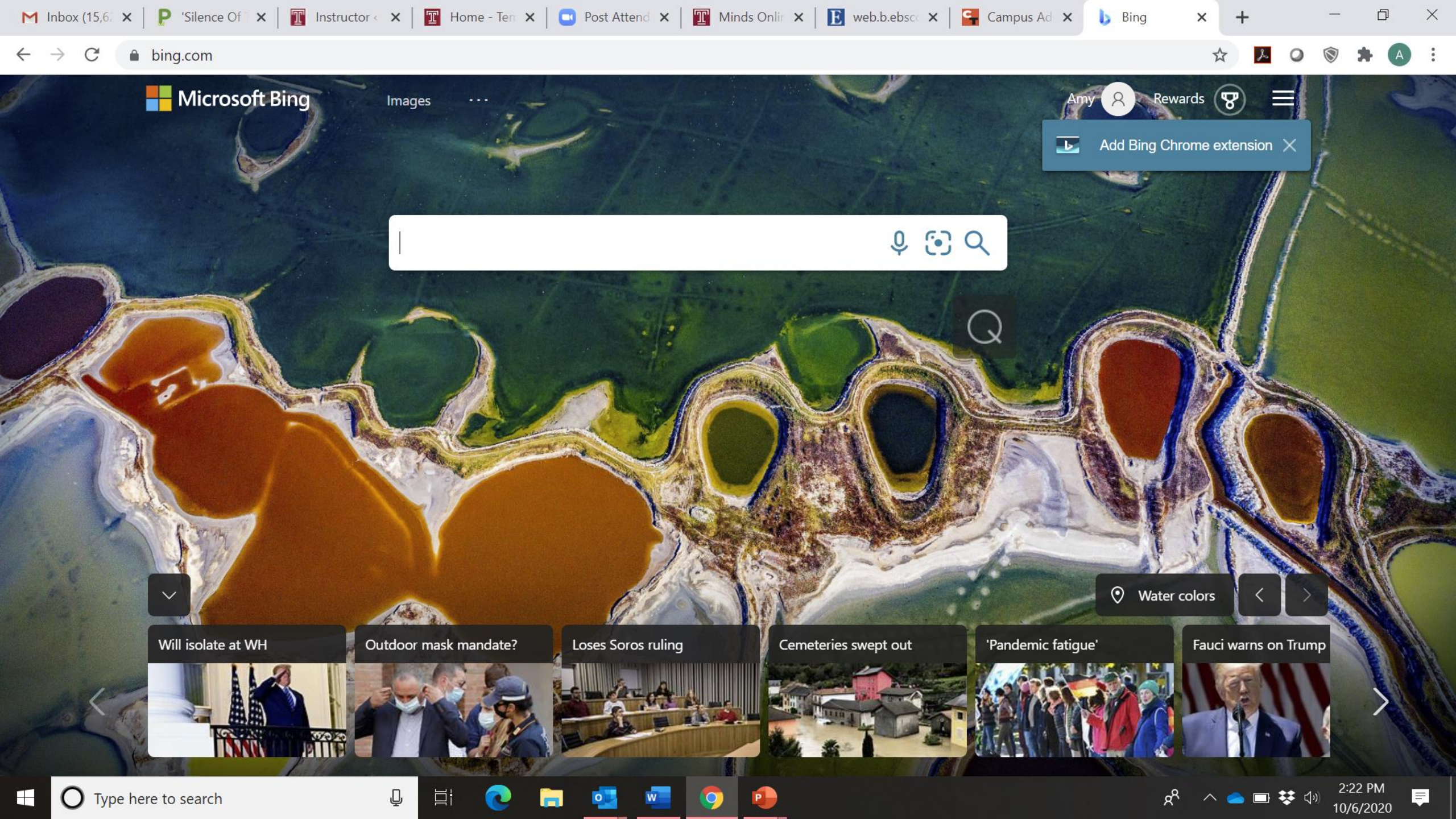
# Knowledge & Mapping

MIS3506 – Spring 2023

Lavin



Search bar with microphone, image, and search icons



Water colors < >

Will isolate at WH

Outdoor mask mandate?

Loses Soros ruling

Cemeteries swept out

'Pandemic fatigue'

Fauci warns on Trump





# www.ARNGREN.net

Teknologi & Gadgets

[el-biler til barn](#) [Index](#)

(Fra 07.11.2004)  
< Frithjof i sin Fly-Bil

Search  [el-retur](#)  
[Slik Betaler du](#)



**Drone-Bike**  
Løfteevne: 8kg  
kr. **19.998,-**



## Index

- Akvarium
- Alarm
- Alkotester
- ATV (el.)
- Bildeviser
- Bil (elektrisk) gas
- Bilbane
- Conrad-elektronik
- Digital-Kikkert
- Disko-Lys
- Dummy-Kamera
- DVD-Spiller
- Elektronikk & DAB
- EL-Scoter & Bil
- Figurer
- Golf-biler (m/skilt)
- Hobby & RC
- Hoverpod
- HP-Måler (Bil)
- Isbitmaskin
- Kamera (trådløst)
- Kino (bærbar)
- Kompass (Bil/Båt)
- Laser-Jamer (Bil)
- Luft-Jekk
- Lykt (oppladbar)
- Mobil-telefon-1, 2
- Motorsykkel-Mini
- Omformer (110V)
- Oversetter (44 sprk)
- PC-mini (9"), 2.
- Rakett-Fly
- RC Produkter
- Robot-Hund
- Robot-Støvsuger

**Solcelle-pakker**  
Nyhet!  
6.998,-

## Se alle våre el-Kjøretøy til Barn og Ungdom. Norges største utvalg

**el-biler til barn** Nyhet!

12V  
24V  
48V

**4WD** fra kr. **1.798,-**

**3-hjul Cargo-el-Bike**



Ingen alders-grense

**el-scooter**

**PEDALS**

Alle Produktene på denne siden lagerføres hos ARNGREN i Oslo. Se Lagerkoden etter Prisene (lev. 2 - 5 dager):

- Er på Lager
- Kommer før 3 uker
- Lengre enn 3 uker

- Elektriske-Kjøretøy
- Elektrisk-ATV - Roboter
- el-biler til barn/ungdom
- Solcelle-produkter
- Forbruker Elektronikk
- Batterier & Ladere, etc
- Fjernstyrte produkter
- Disko-Lys - Rakett

**3-Hjuls el-sykkel**

**Avatar-Gunship**. Er det beste Helikopteret noensinne!

Nyhet!

kr. **299,-**

EI-ATV til Barn & Voksne. fra kr. **3.998,-**

4.998,- 3.998,- el-ATV el-scooter

Mercedes SUV m/ Gummi-Hjul fra kr. **2.998,-**

el-ATV BMW-i8

**EI-Biler til Barn, Ungdom & Voksne**

**elsykkel**

**Fatbike-1500w**

Video Video el-ATV

**Roboter Elektronikk**

**Fotball-Trener**

fra kr. **2.598,-**

**Elektronikk**

**Elektrisk-Scoter**

Fra kr. **9.998,-** (300)

**G-Tog**

Nyhet **4WD**

**el-Bil ; Cross-Rider**

fra kr. **89.998,-**

**4WD**

**79.998**

**el-moped med skilt (16 år)**

**19.998,-**

**el-ATV med skilt (16 år)**

**19.998,-**

**el-bil (16 år & moped-Lappen)** fra kr. **34.998,-**

**el-bil** kr. **89.998,-**

**el-ATV**

**el-jeep 9998,-**

Ta alltid ut 230Vac Adapteren når du ikke er tilstede, eller sover

100km/t

m/Skilt

**Elektrisk-ATV 6000 watt** kr. **59.998,-**

**EL-Scoter 5000 watt** kr. **29.998,-**

**Styreenhet & Fordelere til Bil**

**RC Fly-Båt**

70 cm lang

Video

**EI-Bil; Comarth**

2WD/4WD. 2 eller 4 hjul

fra kr. **89.998,-**

# Knowledge

- In the Head



- In the World



# Knowledge



- *In the Head*
  - Memory
  - Efficient – Readily available
  - Requires Learning
  - Ease of use at first encounter is low
  - Designer has freedom – better UX

# Knowledge



- *In the World*
  - Information is Perceivable
  - Interpretation substitutes for learning
  - Less efficient if you have to stop to learn
  - Ease of use at first encounter is high
  - Can be ugly – requires a deep skillset

# Knowledge



- *In the World*
  - *Knowledge Of (Easy!)*
    - Declarative Knowledge
    - Facts and Rules
  - *Knowledge How (Not so Easy!)*
    - Procedural Knowledge
    - Tacit Knowledge



# Tradeoffs



If the user doesn't have it  
memorized... could take a  
while to interpret needs



First impression could be  
tricky



Lack of freedom for the  
designer

How can you as the designer improve the User's Experience armed with this knowledge?

- Put cues in the design
- Effective mapping
- Understand cultural constraints
- Find the middle ground
- Signifiers, constraints and mappings
- Good conceptual model

# Constraints

- **In the World – Natural Constraints**
  - Restrict behavior
  - Physical features
  - Right tighty/lefty loosey
  
- **In the Head – Cultural Constraints**
  - Reading in different cultures
  - Behavioral constraints/Restrictions on behavior
  - Colors

# “Knowledge” in the Head & the World

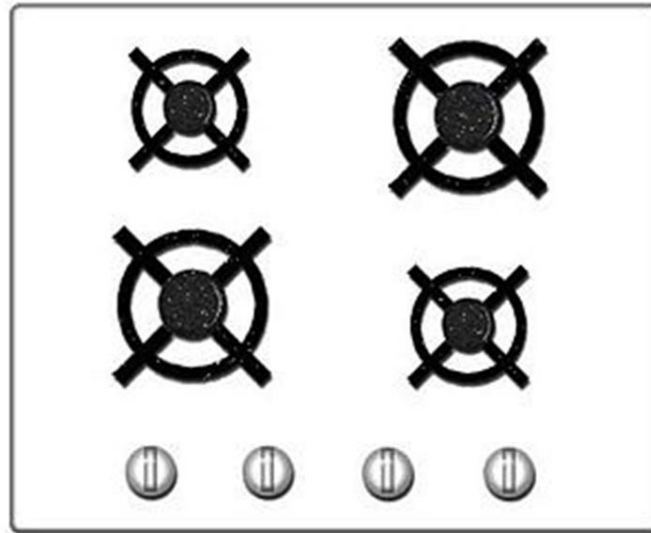
Constraints Simplify Memory



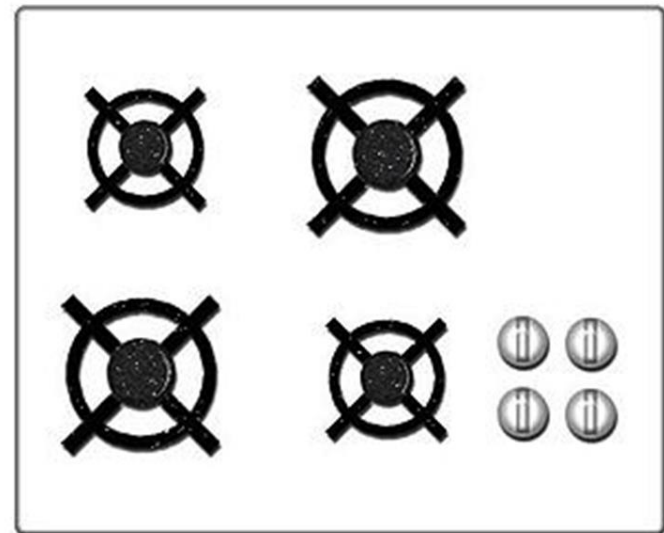
# Knowledge in the world: Constraints



Poor mapping



Good mapping



**Best: Controls are mounted directly on the item**

**Second Best: Controls are as close as possible to the object being controlled**

**Third Best: Controls are arranged in the same spatial configuration as the object being controlled**

Mapping