

6.1040 · software studio · fall 2023

concept design moves

Daniel Jackson & Arvind Satyanarayan

A complex system that works is invariably found to have evolved from a simple system that worked. A complex system designed from scratch never works and cannot be patched up to make it work. You have to start over with a working simple system.

John Gall, *Systemantics*

how do you balance
power & simplicity?

today's learning objectives

understand idea of design moves in general

become familiar with two concept design moves

know tradeoffs: flexibility vs. automation, specificity vs. simplicity

understand idea of design synergy

design moves

great designers

apply familiar design moves

Descartes's 4 rules for the direction of the mind (1628)

- (1) accept nothing as true that is not self-evident
- (2) divide problems into their simplest parts
- (3) solve problems by proceeding from simple to complex
- (4) recheck the reasoning

the 40 design moves of TRIZ, a method for physical design

<p>01) DIVISION</p> <p>a) ship built, made of removable/replaceable bulkheads</p> <p>b) multi-engine aircraft</p> <p>c) multi-piston engine of internal combustion</p> <p>d) toy made from Lego blocks</p> <p>e) brokeable chocolate</p> <p>f) multi-grip gators</p> <p>g) a binded file of paper sheets</p> <p>h) multi-blade cartridge razors</p> <p>i) multi-blade airscrews of aircrafts, or wind power-plants</p>	<p>08) ANTI-WEIGHT (balance preserving)</p> <p>a) wind turbines (normal blades in a vertical position in gusty wind)</p> <p>b) anti-aircrafts</p> <p>c) fish bladder (fish submerged in water)</p> <p>d) balloon filled with hot air</p> <p>e) slipping hydrofoils boats</p> <p>f) concept of hover crafts</p>	<p>15) DYNAMICS</p> <p>a) automatically extendible/opened doors, airlocks, etc., reaching when it is needed</p> <p>b) automatic gears in mobiles</p> <p>c) under-rides in cars of variable stiffness characteristics, tuned exactly to terrain conditions during the driving</p> <p>d) electronic controllers for carburetor, electronically controlled fuel injection in dependency of driving conditions</p>	<p>22) "BLESSING IN DISGUISE" (CONVERT HARM INTO BENEFIT)</p> <p>a) burning the outside of the main fire to cut of fire's fuel</p> <p>b) blowing out the inside/outside the blazing fire from top of a wall in decoration</p> <p>c) permafrost materials are to be "treated" with liquid nitrogen</p> <p>d) the material's permafrost rapidly "liquefies"</p>	<p>28B) SUBSTITUTING OF MECH. SYS. WITH ELECTRO-MAGN. SYSTEMS</p> <p>B) magnetic borne pressure of the machined materials</p> <p>C) mobile fields instead of static fields</p> <p>D) heterogeneous fields</p>	<p>34) DISCARDING & RECOVERING, (REJECT & PARTS REGENERATION)</p> <p>a) dissolvable medication capsules made of (biologically inert material)</p> <p>b) rocket's stages subsequently discarded during the flight</p> <p>c) cornstarch-based packages for dry products</p>
<p>02) TAKING OUT</p> <p>a) taking of notoriously noisy power unit, or compressor out of the main boat</p> <p>b) [engines, turbines, blades] combined with internal ducts for air ventilation system, taken out of the building, i.e. placed on the buildings elevations</p> <p>c) sound of bird's predator, previously registered on a tape, and played back, can be used scaring away the birds, notoriously flying near or around the a parts</p>	<p>09) PRE-ELIMINARY ANTI-ACTION (COUNTER- ACTION)</p> <p>a) counter-acting active sounds</p> <p>b) earphones</p> <p>c) piezoelectric anti-impact system for cutting tool</p>	<p>16) EXCESSIVE (OR PARTIAL) ACTION</p> <p>a) in close fit of both piston and cylinder of the engine</p> <p>b) to spray excessively paint, and then to remove the excess of the paint</p> <p>c) to fulfill the fuel tank, and then to remove the excess of fuel</p>	<p>23) FEEDBACK PRINCIPLE</p> <p>a) basically, as well as particularly:</p> <p>b) autopilot provided with 3-axis gyro system</p> <p>c) robot arms' movement's back-controlled in set of:</p>	<p>29A) PNEUMATICS & HYDRAULICS</p> <p>- pneumatic automobile tyre, pneumatics (air-light) dampers, automobile airbags, - pneumatic "discrete", driving of operational actuators, for instance: in automatic welding of packaging covers made of plastic wrapping</p> <p>on the figure above, in blue: approximate section of automobile pneumatic tyre</p>	<p>35) CHANGING STATE, PARAMETERS, PROPERTIES OF MATERIALS</p> <p>1) High temperature food processing</p> <p>2) low temperature food preserving</p> <p>3) a product ready for further processing step (per submerging in liquid chocolate)</p>
<p>03) LOCAL QUALITY</p> <p>a) dustless excavation of coal - the dust is captured by tiny droplets inside of the water cone</p> <p>b) bigger droplets outside of the cone keep the dust in a place</p> <p>c) assigned average from mine</p> <p>d) negative activation produced for ranges of complex prices, etc.</p>	<p>10) PRE-ELIMINARY ACTION</p> <p>a) blowing off of the (potentially choked) nozzles in printing cartridges</p> <p>b) parking of hard disc reading/writing heads (when it is needed)</p> <p>c) (operational mode)</p>	<p>17) ANOTHER DIMENSION</p> <p>a) two colliding cubes in 3D should be rearranged in 2D plane</p> <p>b) to stack vertically objects, etc. (in analysis of structures of plants, in studying of absorption shells, symmetries in crystallography)</p>	<p>24) INTERMEDATE MEANS, "FITTING" PRINCIPLE</p> <p>a) In electronic circuits fitting either of:</p> <p>b) fitting in mean of:</p>	<p>29B) PNEUMATICS & HYDRAULICS</p> <p>- automobile brakes, - in driving of plane elevator, where the precision of driving is needed, as well as enormous force transition</p> <p>hydraulics in communicating vessels</p>	<p>36) PHASE TRANSITION</p> <p>a binary, phase transition cycle for refrigerator construction</p> <p>temp > 0°C</p> <p>temp < 0°C</p>
<p>04) ASYMMETRY</p> <p>a) pneumatic tyre asymmetrically reinforced from outside, due to contact with pavement curb</p> <p>b) left- or right-handed rules of priority, in right of road</p> <p>c) slanted concrete mixer, blender,</p> <p>d) asymmetrically built conjunctors, handles</p> <p>e) asymmetrically defined functionality of the "tap-the-door" mechanisms</p> <p>f) asymmetrically built car, due to either left- or right-sided driver's sit</p>	<p>11) BEFOREHAND CUSHIONING</p> <p>a) for instance: a method of "dressing" of the cut tree branches (this action, actually forces a tree to beforehand reaction, to gather healing substances) a pressure band</p> <p>b) driver's airbag</p> <p>c) masking of the chosen elements, within patches on the object, before its painting</p>	<p>18) MECHANICAL SELF-INDUCED VIBRATIONS (IN RESONANCE)</p> <p>a) piezoelectric engine - a conceptual design</p> <p>b) quartz generators, in electric circuits</p>	<p>25) SELF-SERVICING PRINCIPLE</p> <p>a) self-servicing system</p> <p>b) constant regeneration of the glow of halogen lamp</p>	<p>30) FLEXIBLE FILMS, FOILS, MEMBRANES</p> <p>a) not waterproof film prohibits evaporation of water</p> <p>b) wrapping packaging based on plastic-squeezed bubbles</p> <p>c) flexible balloons, domes, barriers</p>	<p>37) THERMAL EXPANSION</p> <p>1) thermal shaft fitting</p> <p>2) state of thermal balance</p>
<p>05) MERGING</p> <p>a) several computers combined into functioning network</p> <p>b) a hedge made of pales</p> <p>c) textiles made of wool/polyester/wool fibres</p> <p>d) roofing tiles combined into coverage of house roof</p> <p>e) mobile concrete mixer, mobile crane, refrigerator, merged into single mobile machine unit, combining of the stationary machines with mobile undercarriages</p>	<p>12) EQUIPOTENTIALITY</p> <p>a) a sequence of linear movements is replaced by single seamless movement on section of arc</p> <p>b) disassemble surgeon threads</p>	<p>19) PERIODICAL ACTION, OR PULSED ACTION</p> <p>a) hammer drill</p> <p>b) pulsed laser, as a part of optical amplification</p> <p>c) pseudo-analogue driving (PWM) (Pulse Width Modulation)</p> <p>d) pulse DC power unit against: conventional DC power unit</p>	<p>26) COPYING, IMAGING PRINCIPLE (application of optical mapping)</p> <p>a) use of ultrasound</p> <p>b) magnetic resonance mapping</p> <p>c) X-rays radiography</p> <p>d) in mapping of material structures the application of: infrared - ultraviolet - basicality of optical methods</p> <p>e) use of fluorescence and of scintillation's materials</p>	<p>31) POROUS MATERIALS</p> <p>a) aerated concrete (porous concrete)</p> <p>b) porous, sponge materials in kitchen getters</p> <p>c) porous abrasive scale</p> <p>d) catalysing surfaces in chemistry</p> <p>e) "vacuum" as a construction building material</p> <p>f) openwork structures reinforcement</p>	<p>38) STRONG OXIDANTS</p> <p>a) oxygen</p> <p>b) ozone</p> <p>c) (indirectly) vapour H₂O</p>
<p>06) UNIVERSALITY</p> <p>a) a helmet in use, within field conditions, rendered as "handy-tools"</p> <p>a1) spade</p> <p>a2) frying pan</p> <p>b) universal "handy-tools"</p> <p>c) sets of universal kitchen robots, mixers, blenders, with operating actuators (rasers, juice extractors, etc.)</p>	<p>13) INVERSION (UPSIDE DOWN)</p> <p>a) for instance: in reversing the working mode of vacuum cleaner (then, vapour could be used in cleaning of carpets)</p> <p>b) to turn mounted object upside down, on assembling line</p> <p>c) turning (object in move, while motionless turning tool, against) moving (mobile milling cutter)</p> <p>d) binary tree's structure is sought from root to leaves in one (in-depth) search algorithm, while another algorithm seeks through nodes from leaves to root</p>	<p>20) CONTINUITY ACTION OF USEFUL ACTION</p> <p>a) overlapping or L operating in both directions</p> <p>b) clean turbines of generators for one power plants, working continuously in optimal mode, while the others working, as pump storage power plants, in aim of storing of energy for afternoon hours (mode: pumping of the waters into upper reservoir on mornings, while emptying upper reservoir into lower one on afternoons)</p>	<p>27) INEXPENSIVE SHORT-LIVED OBJECTS (CHEAP CADUCITY, & OF DISPOSABLE MATERIALS)</p> <p>a) kitchen utensils, dishes, cutlery made of plastic</p> <p>b) plastic bags, packaging wrappers, etc.</p> <p>c) disposable springs, gloves, etc.</p> <p>d) printing head integrated with ink cartridge (formerly, each printer possessed built-in printing head) (presently, each of ink cartridge has its own printing head)</p>	<p>32) COLOUR CHANGING (ALTERNATING)</p> <p>a) in lapping process for inner surfaces of engine pistons & cylinders, the grading of phase-contrast distribution can be used</p>	<p>39) NEUTRAL ATMOSPHERES, INERT ENVIRONMENTS</p> <p>a) CO₂ extinguishers</p> <p>b) N₂ or He₂ protection atmospheres in processing, and production</p> <p>c) N₂ or He₂ protection atmospheres in storing of products, and materials, both raw and processed</p>
<p>07) EMBEDDED STRUCTURES (nested "Dolls" - Matryoshka)</p> <p>a) radiators of ultrasound welders</p>	<p>14) SPHEROIDALITY, CURVATURES</p> <p>a) applications of:</p> <p>b) replacement of linear movements by circular movements</p> <p>c) application of arcs in architecture</p> <p>d) circular accelerators (synchrotrons / magnetrons) in place of concept of linear accelerators of particles</p> <p>e) extensible, retractable measuring tape</p>	<p>21) SKIPPING, QUICK MODE, OR PACE OF REALIZATION</p> <p>a) wood-borne materials in quick thermal processing</p> <p>b) laser treatments of biological tissues (both extremely soft and extremely hard) without thermal deformations, scorching, burnings</p> <p>c) pre-second pulsed lasers (femto-second lasers) against laser of micro- and nano-second pulses (against micro- and nano-second pulses)</p> <p>d) steel hardening process in abrupt temperature changes</p>	<p>28A) PRINCIPLE OF SUBSTITUTING OF MECHANICAL SYSTEM WITH FUNCTIONALLY EQUIVALENT ELECTRO-MAGNETIC SYSTEMS</p> <p>a) electric field to substitute with interaction of magnetic field or vice versa</p>	<p>33) HOMOGENEITY</p> <p>the two interfacing surfaces should be made of the same material</p> <p>moreover, the similarities can be applied, regarding:</p> <ul style="list-style-type: none"> - comparable mat.'s hardness, chemical friction, structures - comparable thermal expansion's coefficient, (in case of dental materials; metal-glass conjunctions), - comparable electro-chemical potentials (in avoiding electro-chemical borne corrosion) - same fatigue characteristics, and amonization specifics 	<p>40) COMPOSITE MATERIALS</p> <p>1) elements of blades, rotors, airscrews in wind turbines constructions;</p> <p>2) yacht's & sailaramen's constructions;</p> <p>3) elements exposed to ultra-strong, severe stress</p>

tighten-loosen: tradeoff automation/flexibility



light pull / door lock



tighten



airplane toilet lock



dimmers with separate controls

loosen



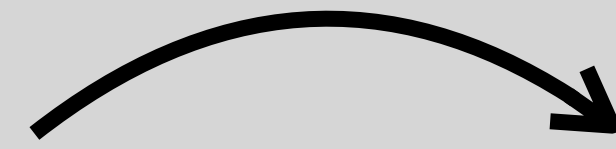
rotary dimmer switch

unify-specialize: tradeoff simplicity/specificity



set of wrenches

unify



adjustable wrench



macro lens

specialize

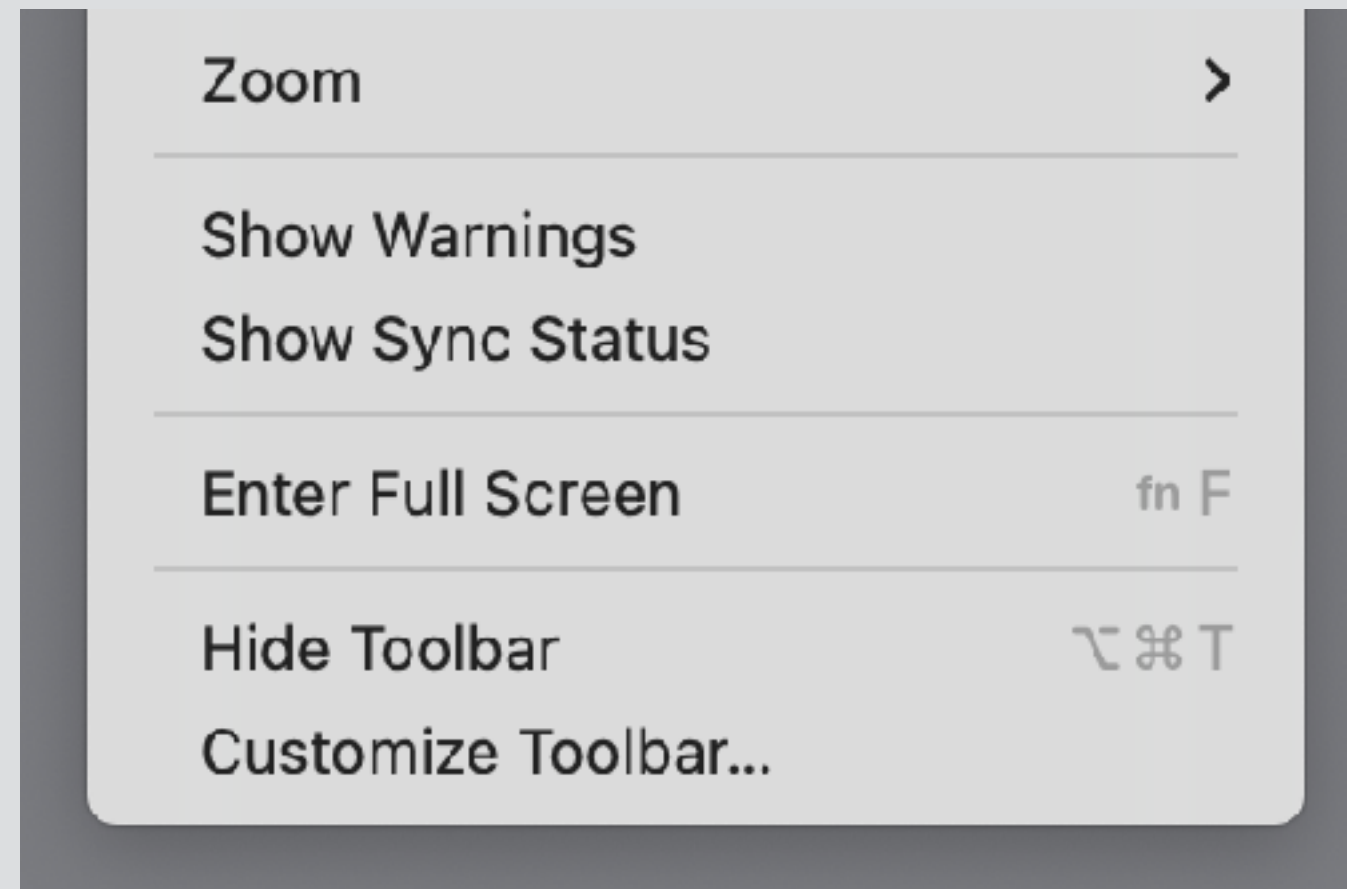


general-purpose lens

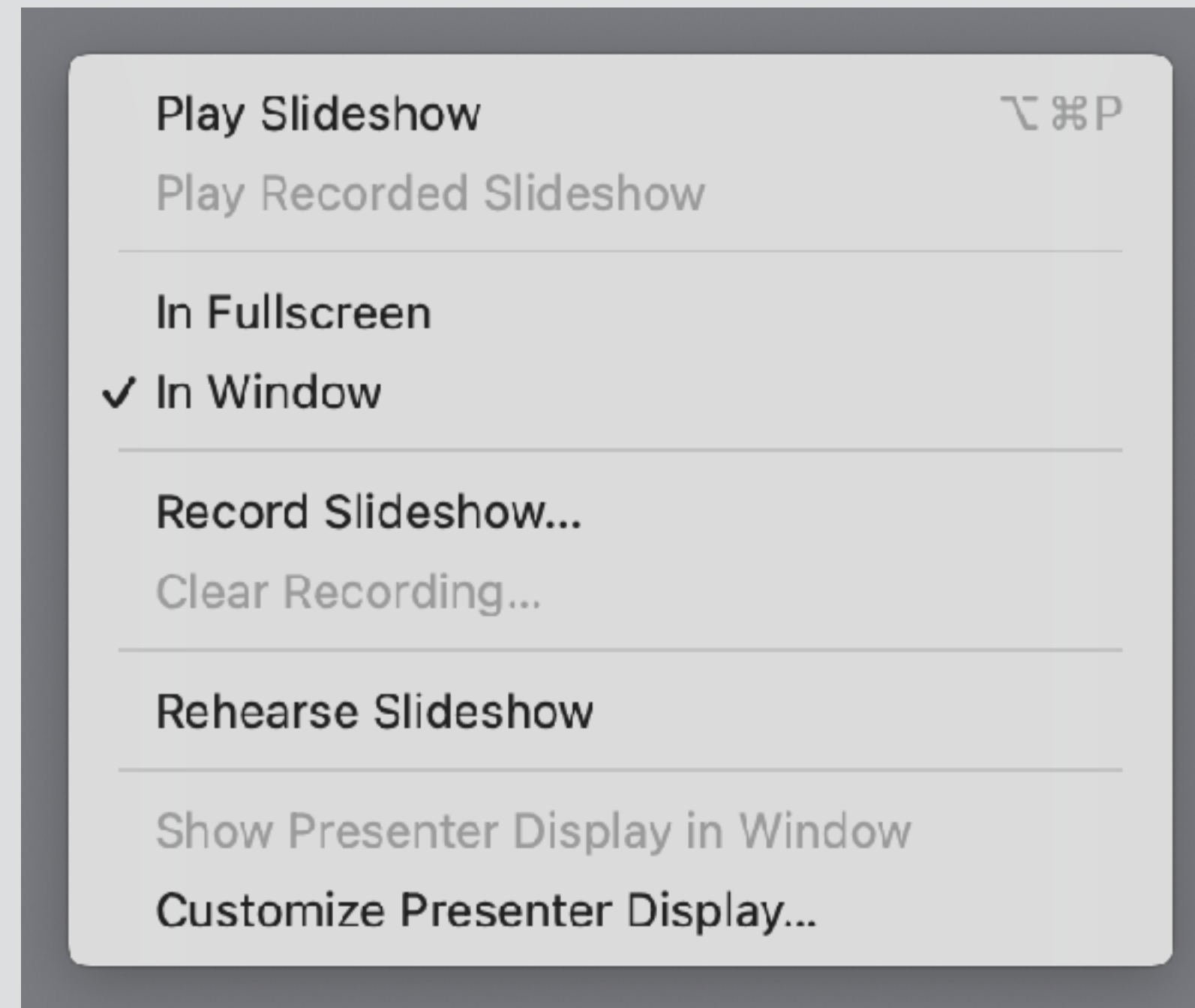
tighten/loosen

keynote's fullscreen

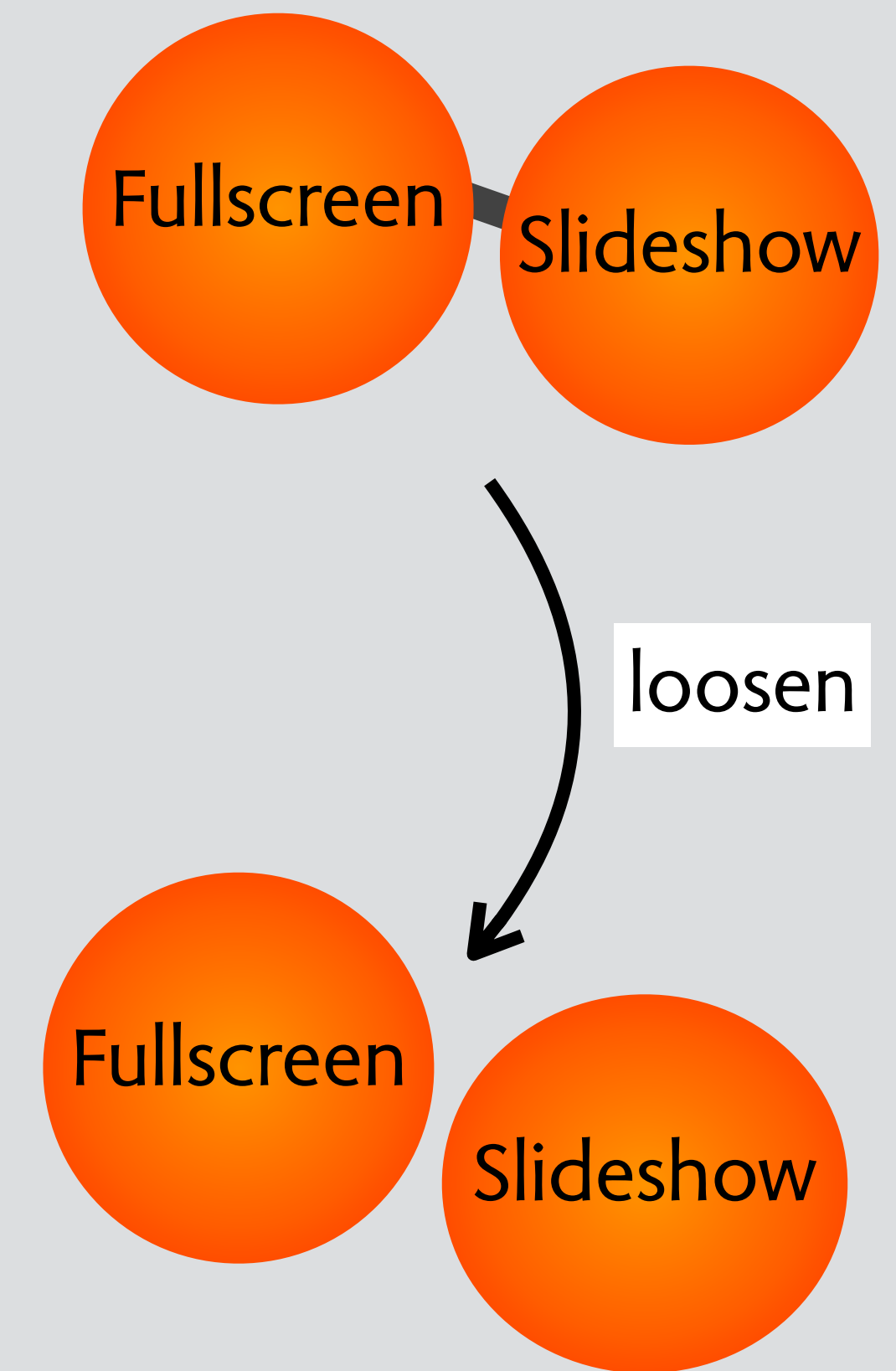
split: emergence of a concept in Keynote



fullscreen without
slideshow possible
(c. 2010?)



slideshow without
fullscreen
(2021)



schindler's
port elevator

Schindler's PORT elevator



A boost to traffic performance

Schindler PORT groups passengers by destination to provide the shortest possible trip for every rider, avoiding chaotic elevator runs and random, multiple stops.

User-friendly operation

With Schindler PORT's universal card reader, a rider simply swipes a personal access card at the Schindler PORT terminal for an elevator car to be immediately assigned with an approved destination.

Excellent personalized service

Schindler PORT can customize your journey, whether it be a special VIP trip, a streamlining patient transport or allowing for more approach time, longer door opening time or additional space for passengers with special needs.

Enhanced building security

Floor access is defined by the building management through access cards or smartphones. Schindler PORT can also be integrated with turnstiles to further enhance building security.



UserAuth

Directory

Port

card C issued
for user U

user U registered
at floor F

card C authenticates
user U

get floor for user U
returns F

enter floor F
indicates bank B

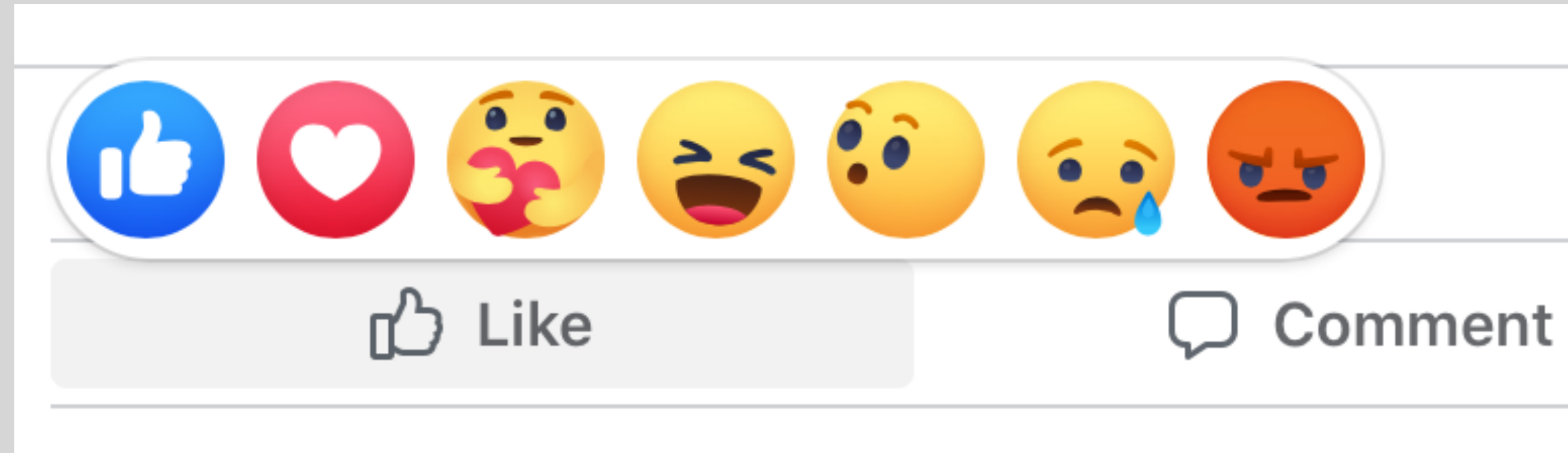
elevator arrives
at bank B

elevator stops
at floor F

increased automation, better security, reduced flexibility

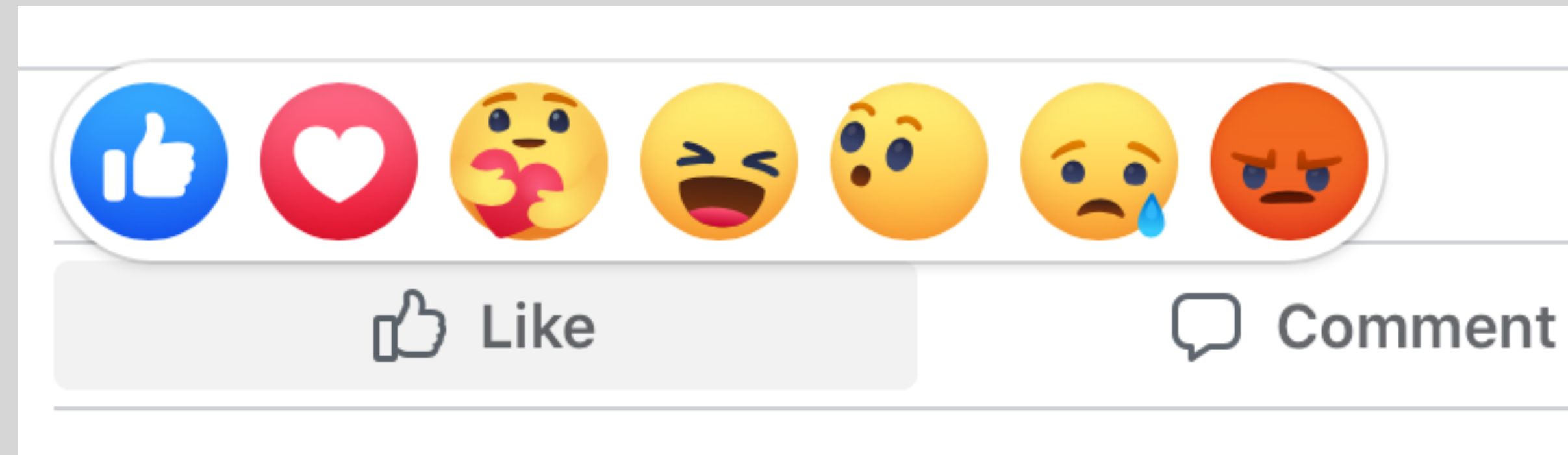
Facebook's reactions

are angry reactions upvotes?



is this a good design?

a concept diagnosis



concept Upvote

purpose rank items by popularity

actions

upvote (u: User, i: Item)

...



concept Reaction

purpose convey emotion to author

actions

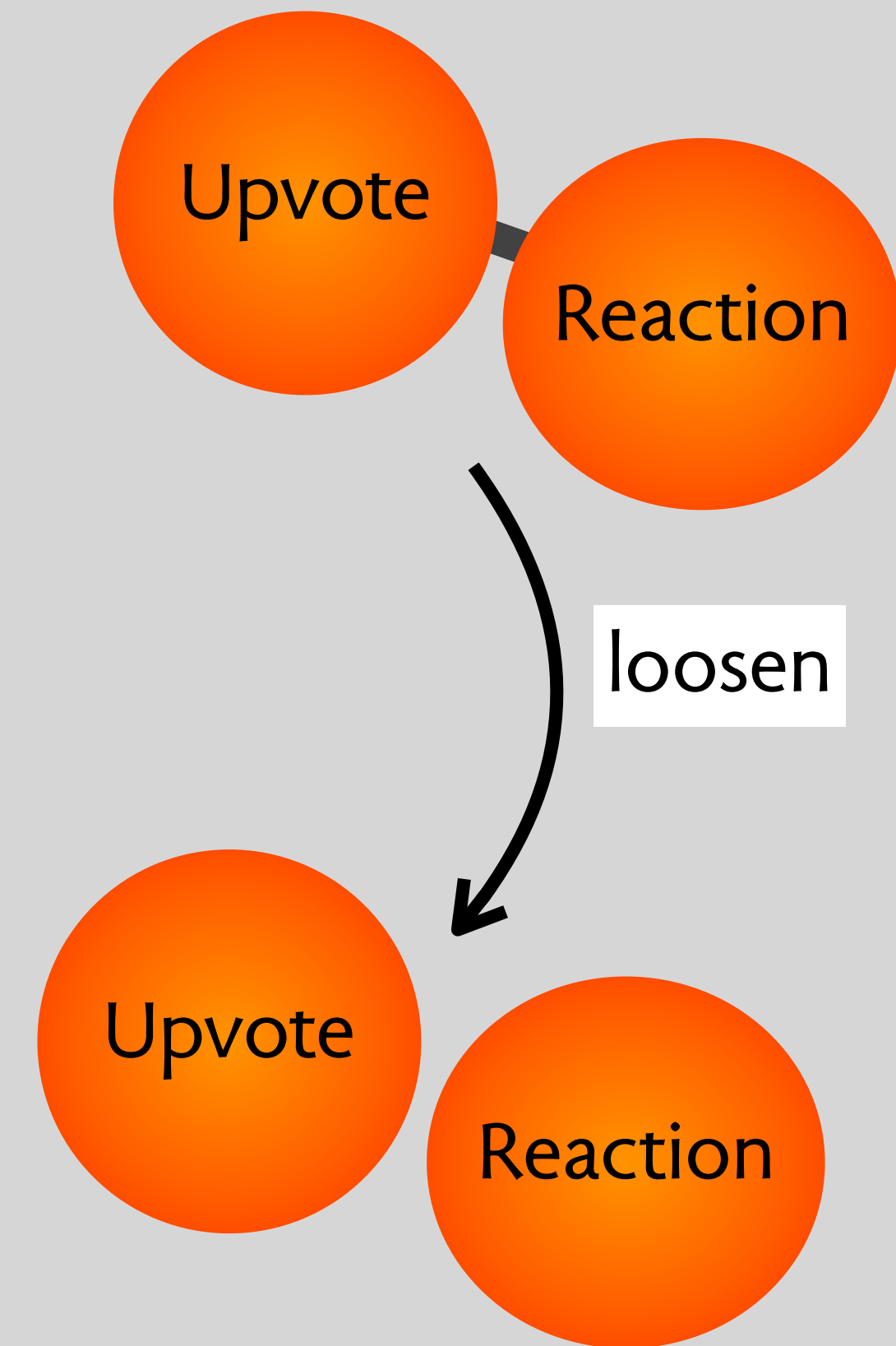
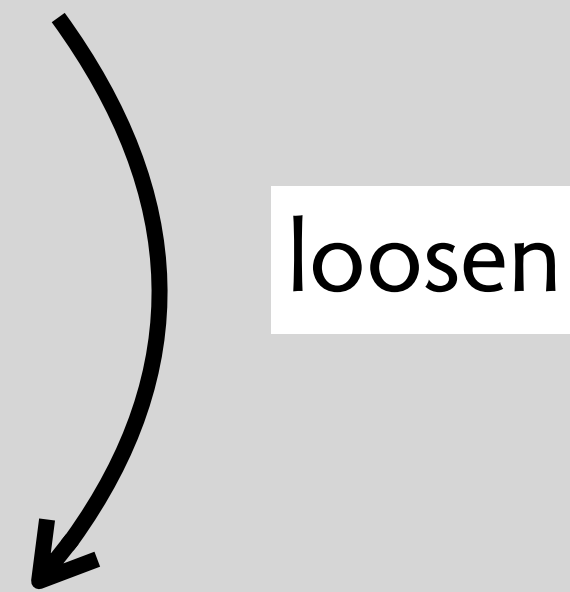
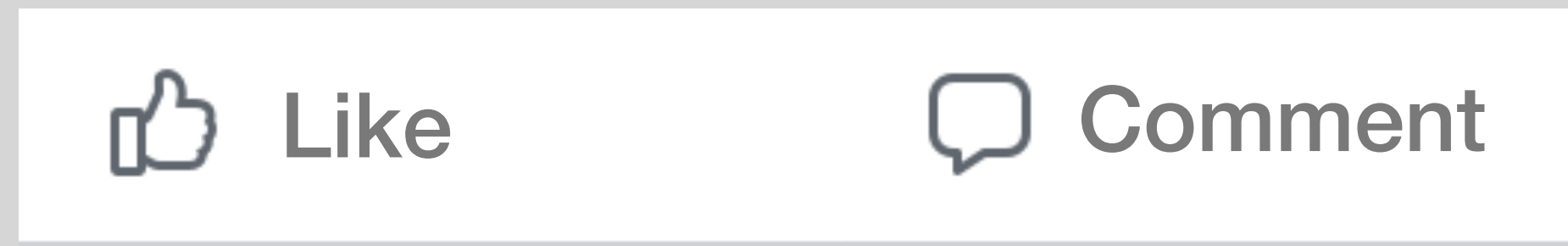
reactAngry (u: User, i: Item)

...

unwanted
sync?

sync brings automation at expense of flexibility

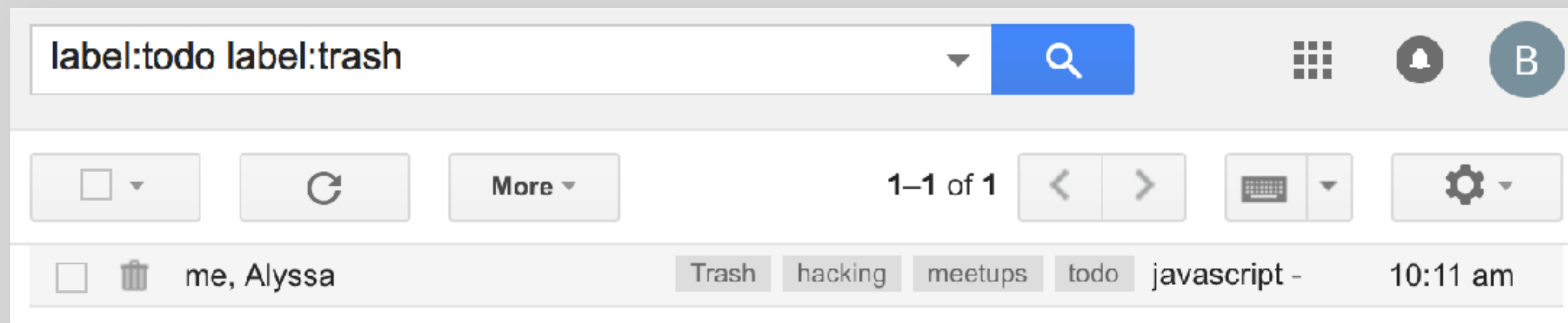
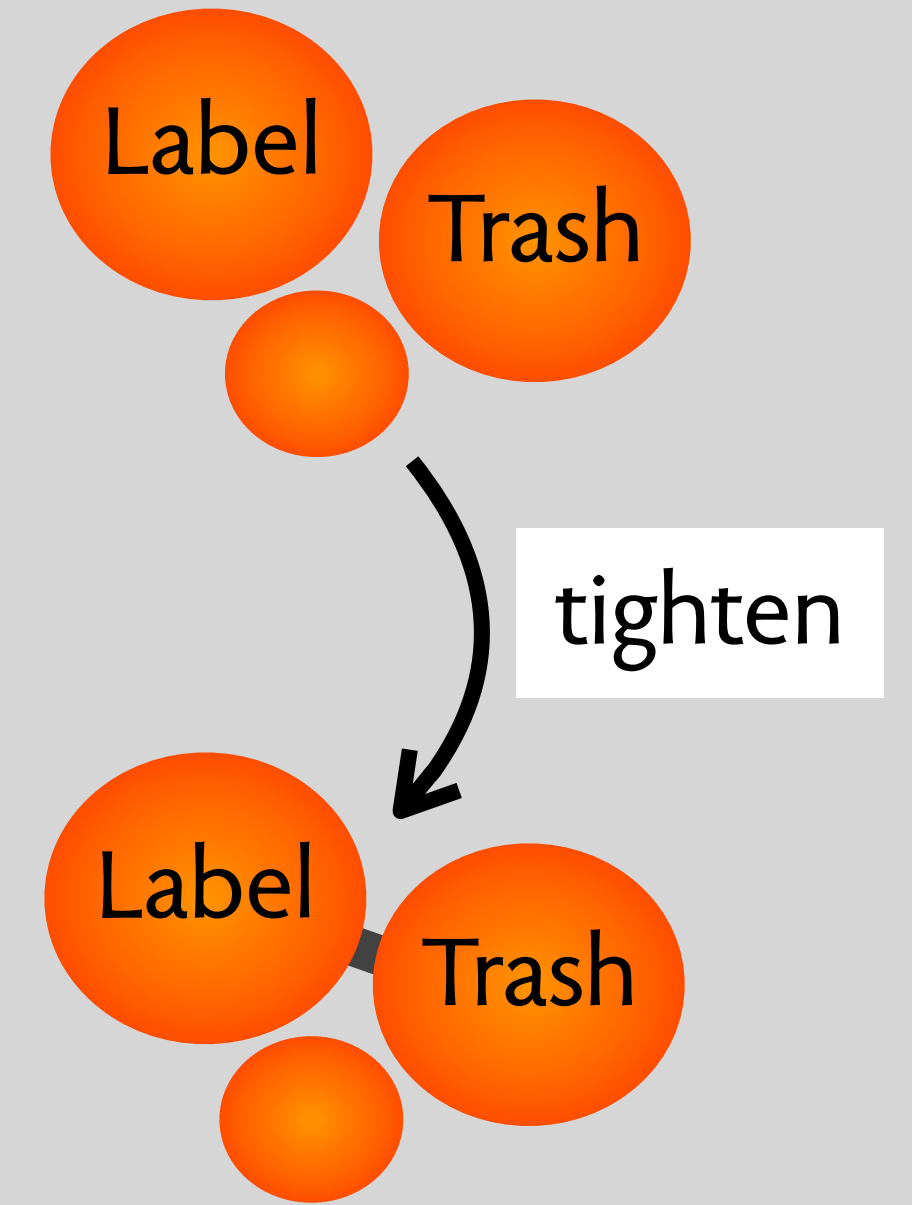
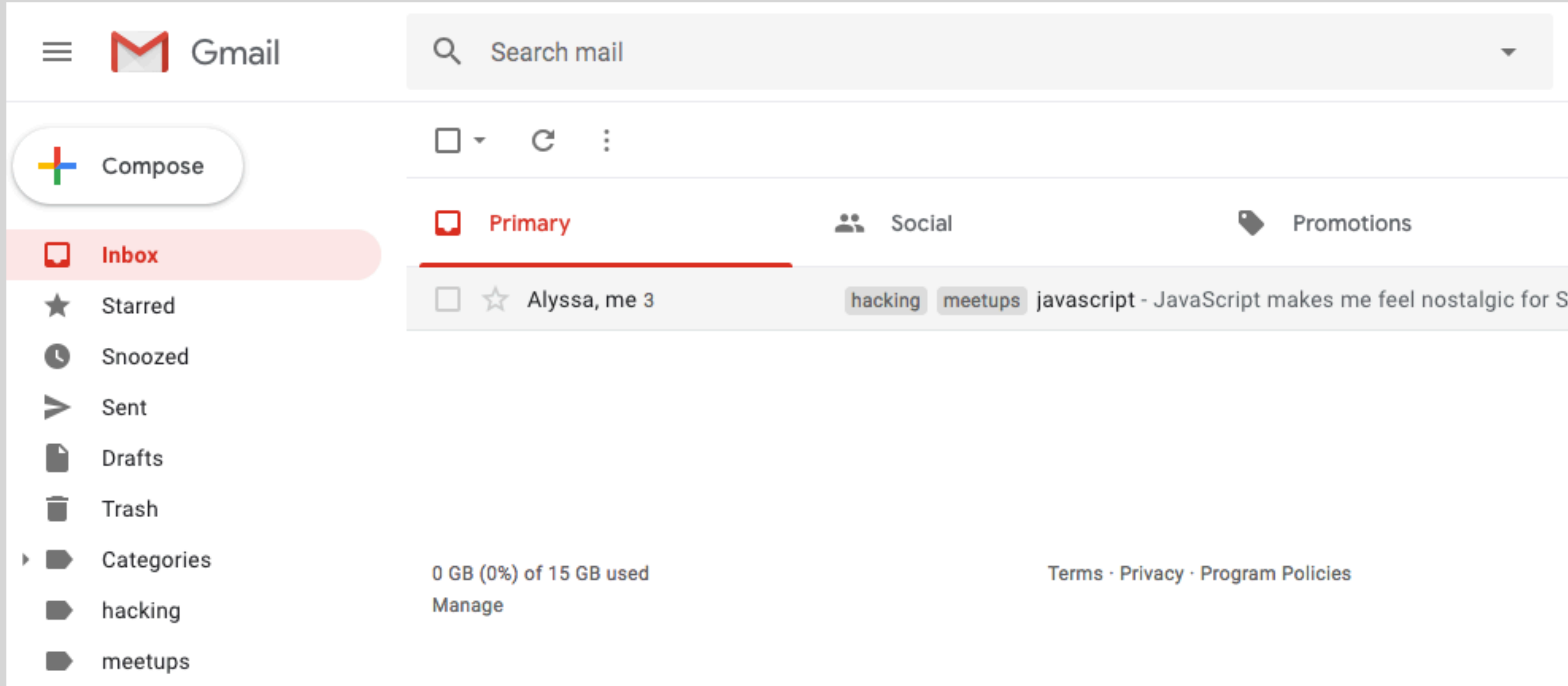
a facebook split



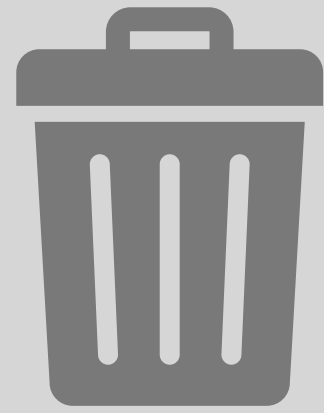
loosening sync would recover flexibility but more steps

gmail's label & trash
concepts

Gmail's Label and Trash concepts



how the Label-Trash sync works



concept Trash

purpose undo deletion

structure

trash: **set** Item

actions

delete (i: Item)

restore (i: Item)

empty ()



concept Label

purpose organize with overlapping

structure

labels: Item -> **set** Label

actions

add (i: Item, l: Label)

remove (i: Item, l: Label)

find (ls: **set** Label, **out** is: **set** Item)

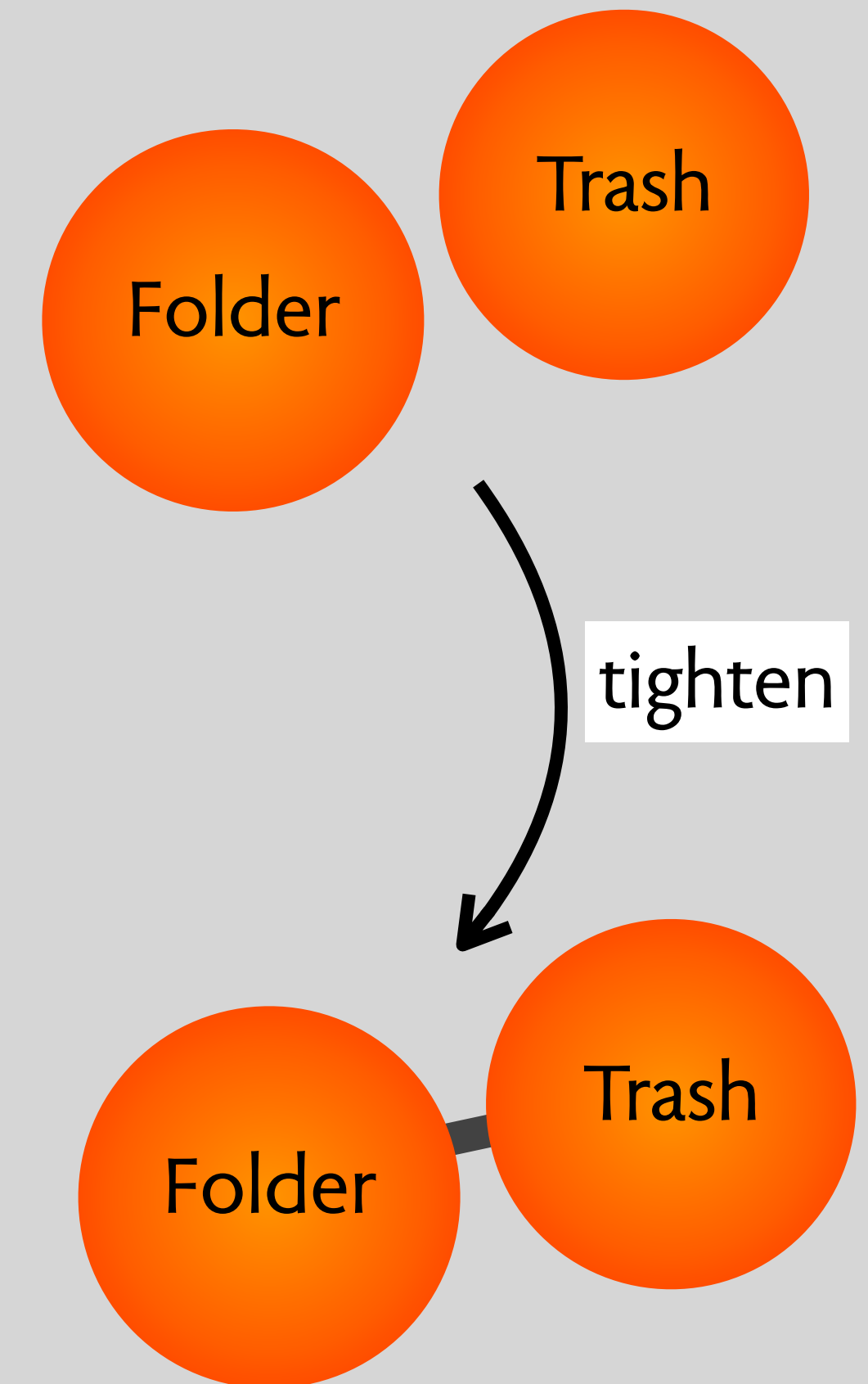
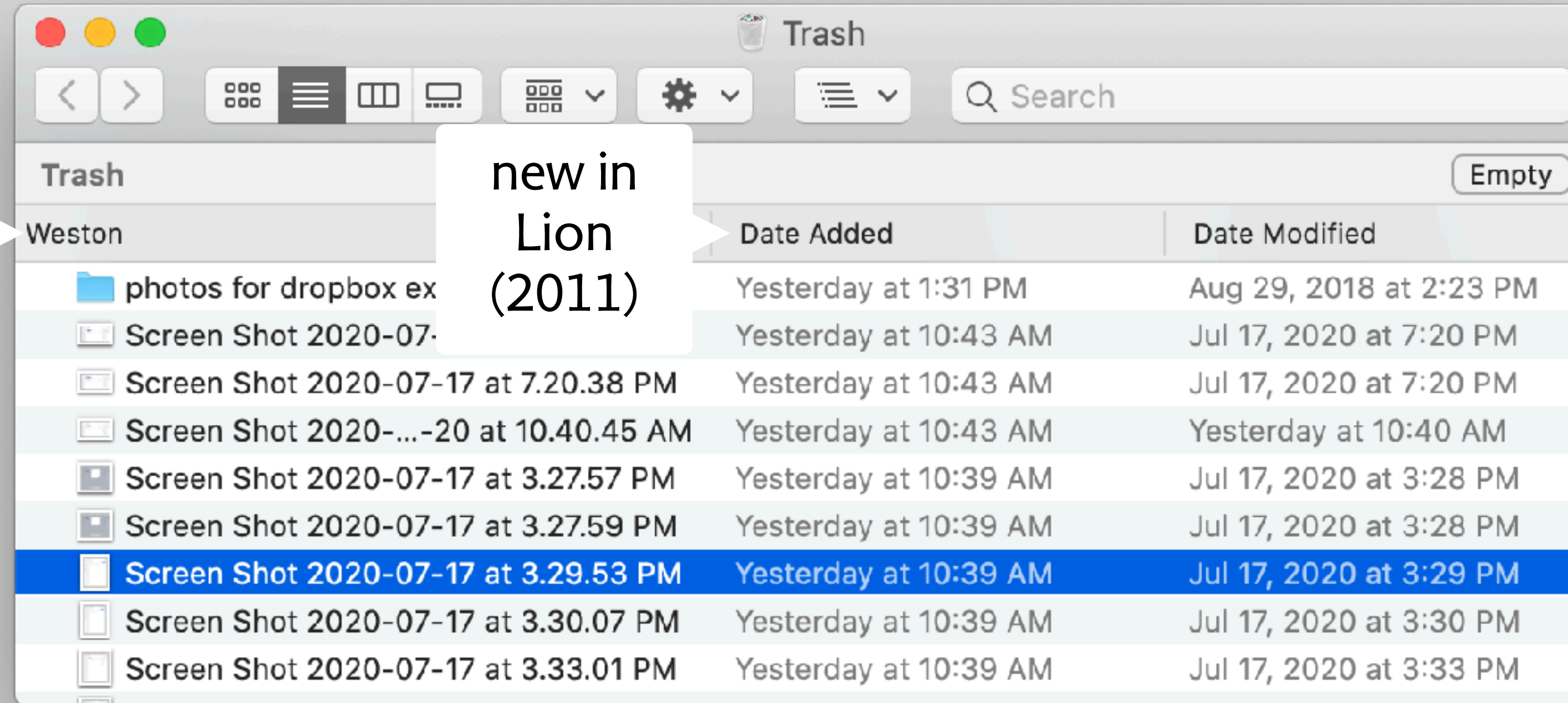
when delete (i)
add (i, 'trash')

synergy: can now filter on trashed messages using labels

apple's folder & trash
concepts

a synergy that was still developing after 30 years

folder sortable by volume!



what special features does trash folder have?

synergy: can use all folder features on trash

yellkey's shortener
& expiry concepts

yellkey: url to common word shortener.

yellkey
enter url and length of time for key to exist.

full url (e.g. http://www.google.com)

5 minutes

generate yellkey

your key is: **best.**
go to www.yellkey.com/best to use.

IMPORTANT:

yellkeys are **NOT** private. anyone can access your URL if they want to. please be careful what links you choose to share through yellkey.

try out our yellkey browser extensions for [Google Chrome](#), [Mozilla Firefox](#), and [Apple Safari](#)

concept Shorthand [Target]

purpose provide access via shorthand strings

principle

after registering a target t and obtaining a shorthand s ,
looking up s will yield t : $\text{register}(t, s)$; $\text{lookup}(s, t')$ $\{t' = t\}$

state

used: **set** String

shortFor: String \rightarrow **opt** Target

const shorthands: **set** String

actions

$\text{register}(t: \text{Target}, \text{out } s: \text{String})$

s in shorthands - used

$s.\text{shortFor} := t$; used += s

unregister ($s: \text{String}$)

s in used

used -= s ; $s.\text{shortFor} := \text{none}$

$\text{lookup}(s: \text{String}, \text{out } t: \text{Target})$

s in used

$t := s.\text{shortFor}$

concept ExpiringResource [Resource]

purpose handle expiration of short-lived resources

principle

if you allocate a resource r for t seconds, after t seconds
the resource expires: $\text{allocate}(r, t)$; $\text{expire}(r)$

state

active: set Resource

expiry: Resource \rightarrow one Date

actions

$\text{allocate}(r: \text{Resource}, t: \text{int})$

r not in active

active += r ; $r.\text{expiry} := t$ secs after now

$\text{deallocate}(r: \text{Resource})$

r in active; active -= r ; $r.\text{expiry} := \text{none}$

$\text{renew}(r: \text{Resource}, t: \text{int})$

r in active; $r.\text{expiry} := t$ secs after now

system $\text{expire}(\text{out } r: \text{Resource})$

r in active; $r.\text{expiry}$ is before now;

active -= r ; $r.\text{expiry} := \text{none}$

yellkey: url to common word shortener.

yellkey

enter url and length of time for key to exist.

your key is: **best**.

go to www.yellkey.com/best to use.

IMPORTANT:
yellkeys are **NOT** private. anyone can access your URL if they want to.
please be careful what links you choose to share through yellkey.

synergy: can adjust Shorthand to return only common words

google calendar's
event & invitation



Arvind Satyanarayan

November 15, 2018 at 2:04 PM

Re: TALK: Monday 11-19-2018 Kanit (Ham) Wongsuphasawat: No...

[Details](#)

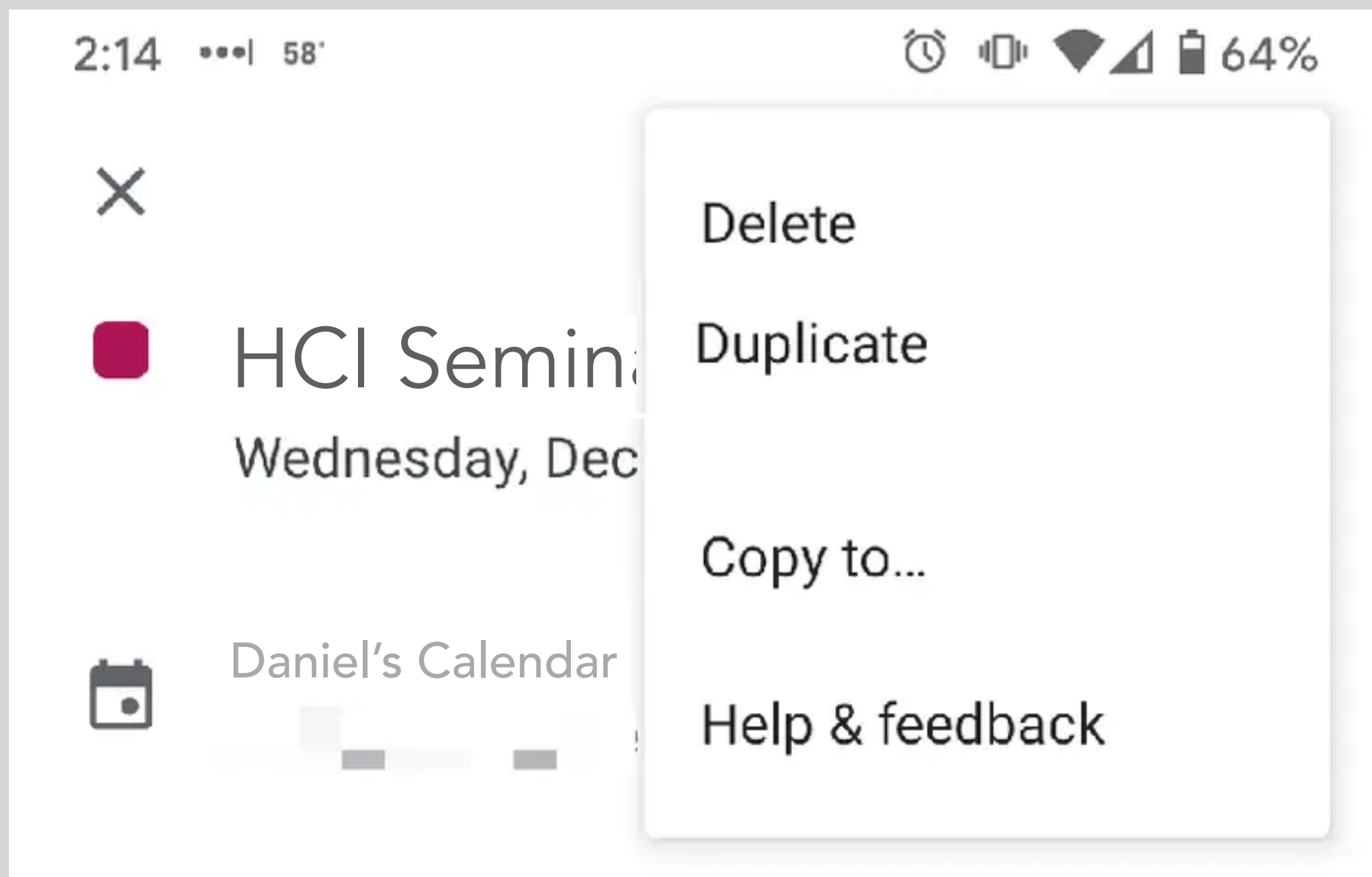
Cc: seminars@csail.mit.edu, HCI-Seminar@lists.csail.mit.edu



This message is from a mailing list.

[Unsubscribe](#) 

Despite some erroneous messages sent to this list accidentally, Kanit's talk is happening!
Please join us on Monday.



Canceling and deleting events in the Google Calendar mobile app is similar to on a desktop.

1. First, open Google Calendar.
2. Tap on the event you wish to cancel.
3. Press on the three dots in the top right corner of the event window.
4. Select Delete.
5. Tap Delete event. Google Calendar will send a cancellation email to the guests.

Mar 22, 2021

<https://wpamelia.com> › Blog

[How to Cancel an Event in Google Calendar - Amelia booking ...](#)





Are you sure you want to delete this event?

Deleting this meeting will remove it from your calendar and notify the invitees that this event has been deleted. You can't undo this action.

Cancel

Delete

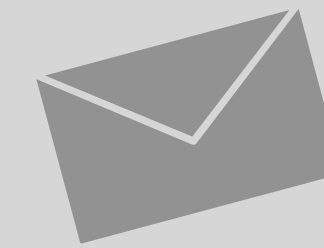
a long time problem in iCal too
how to delete spam calendar events?

tightening brings automation but disastrous loss of flexibility

diagnosis?



concept Calendar
purpose record engagements
actions
createEvent (...): Event
deleteEvent (e: Event)
...



concept Invitation
purpose coordinate events
actions
accept (e: Event)
decline (e: Event)
...

unwanted
sync!

apple's solution



Are you sure you want to delete this event?

Deleting this event will notify the organizer that you're declining the event and deleting it from your calendar. You can't undo this action.

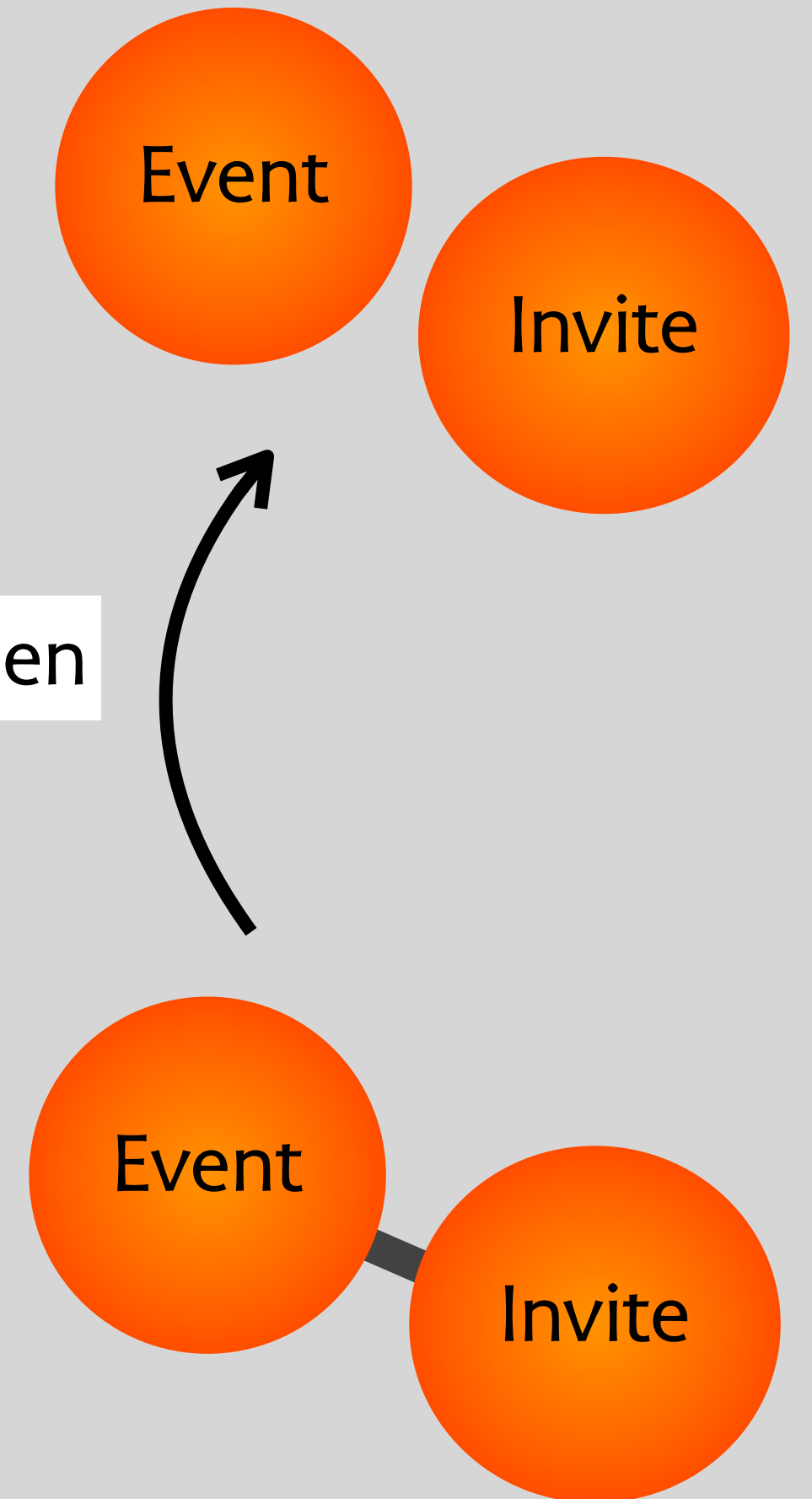
Cancel

Delete and Don't Notify

Delete and Notify

resolution to design problem
make sync optional

loosen

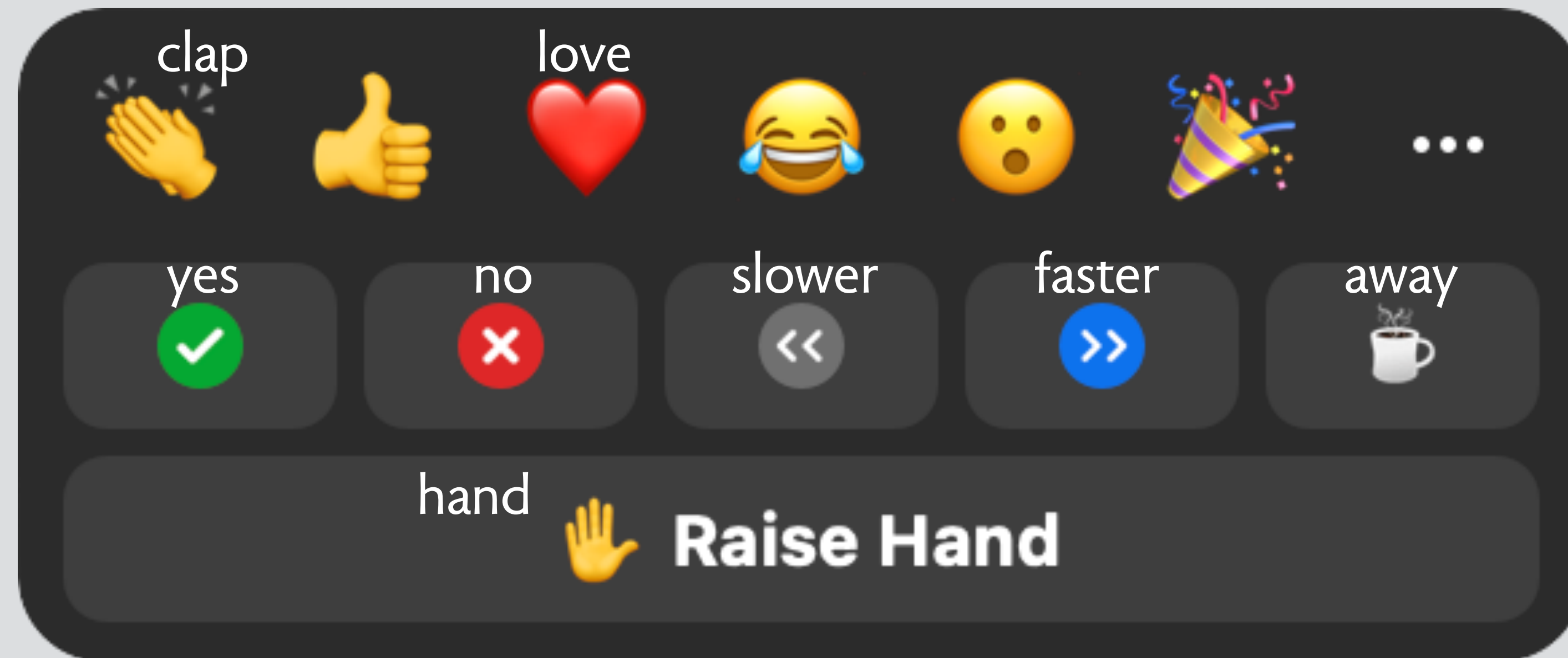
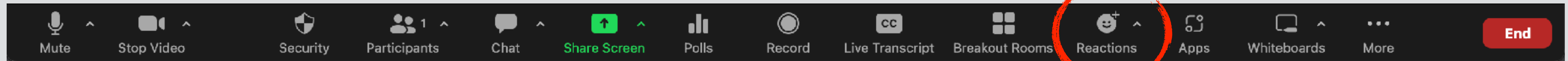


loosening adds complexity but restores flexibility

unify/specialize

Zoom's reactions

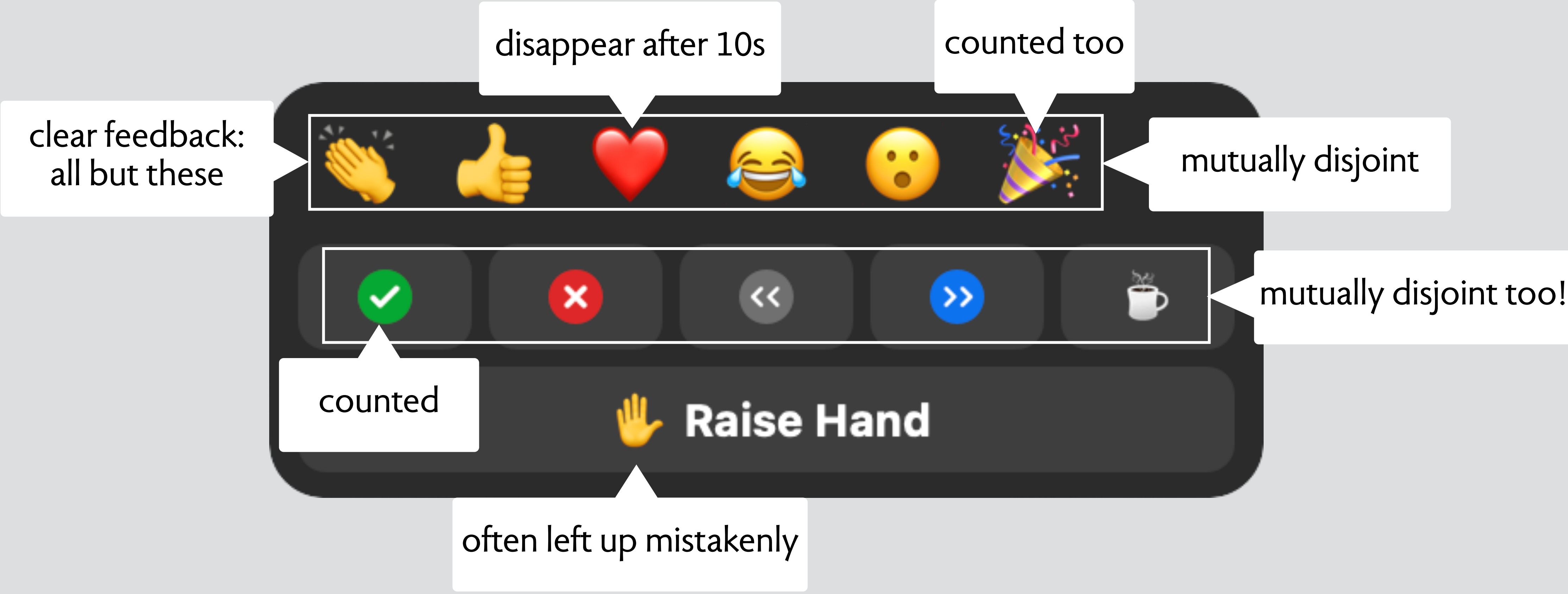
Zoom's Reaction concept



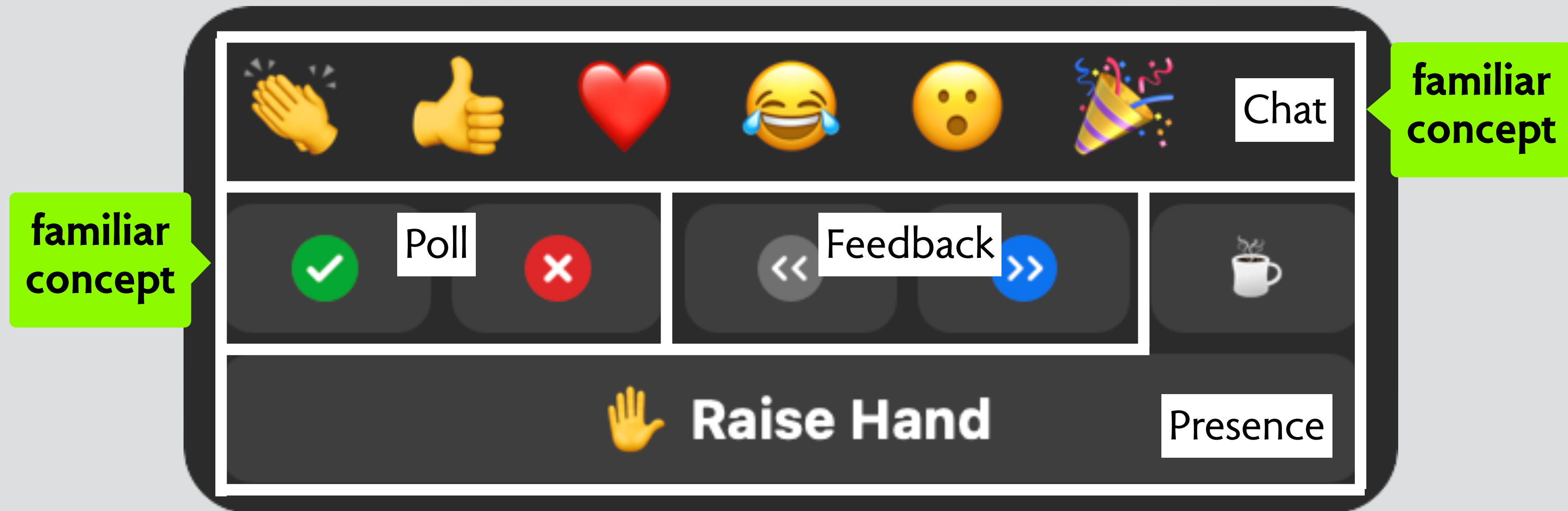
what do you think of this design?

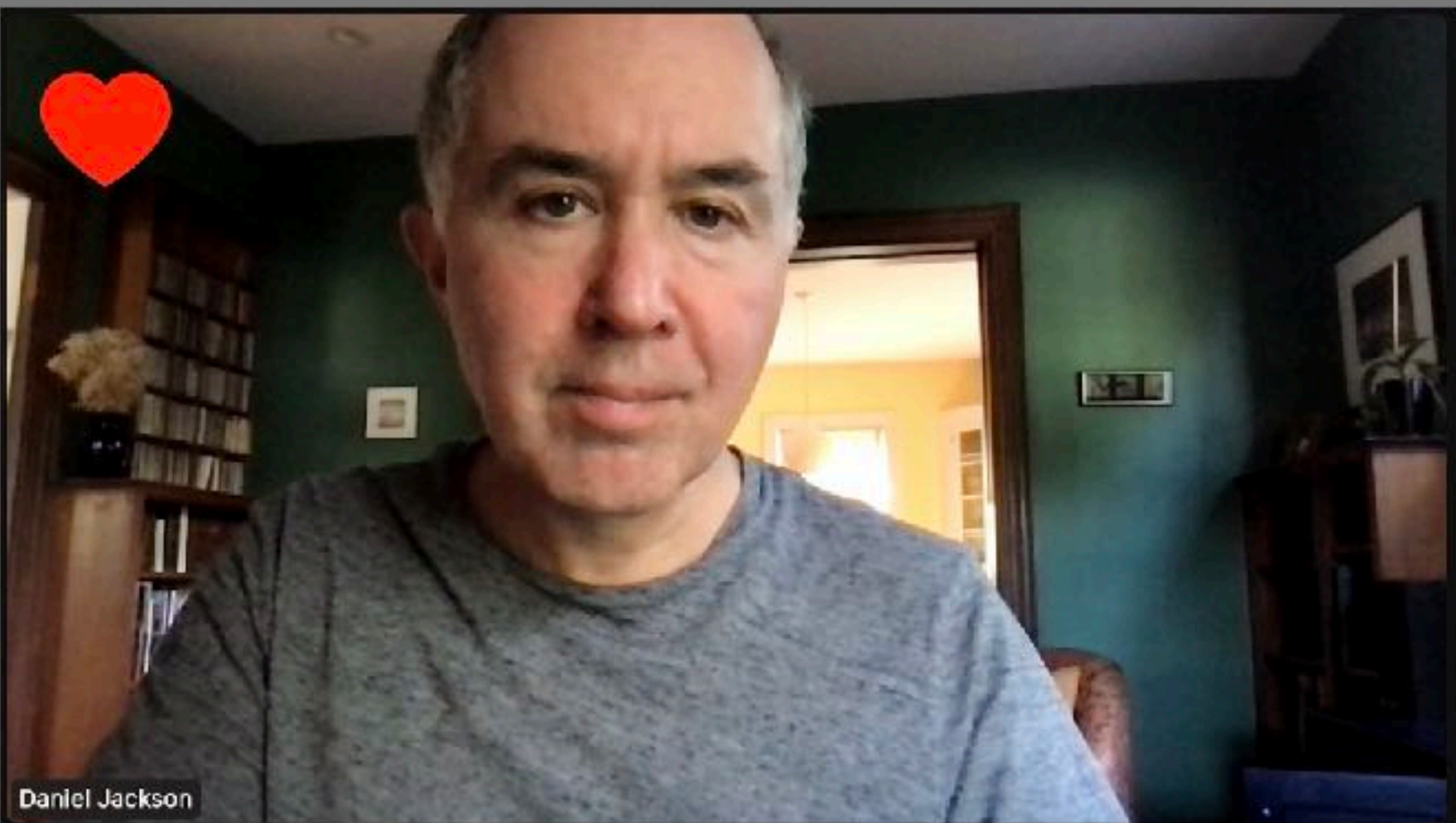
anomalous behaviors indicate an overloaded concept

how might you fix this design?

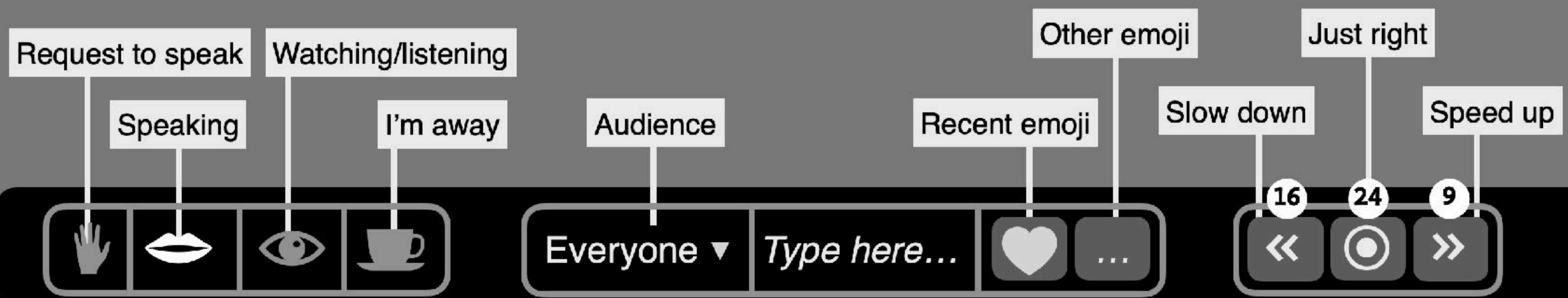


splitting into coherent concepts





specialization would give more flexible & familiar UX



Moira's lists

unify: subsuming access control in MIT's Moira

can toggle mailing list attribute

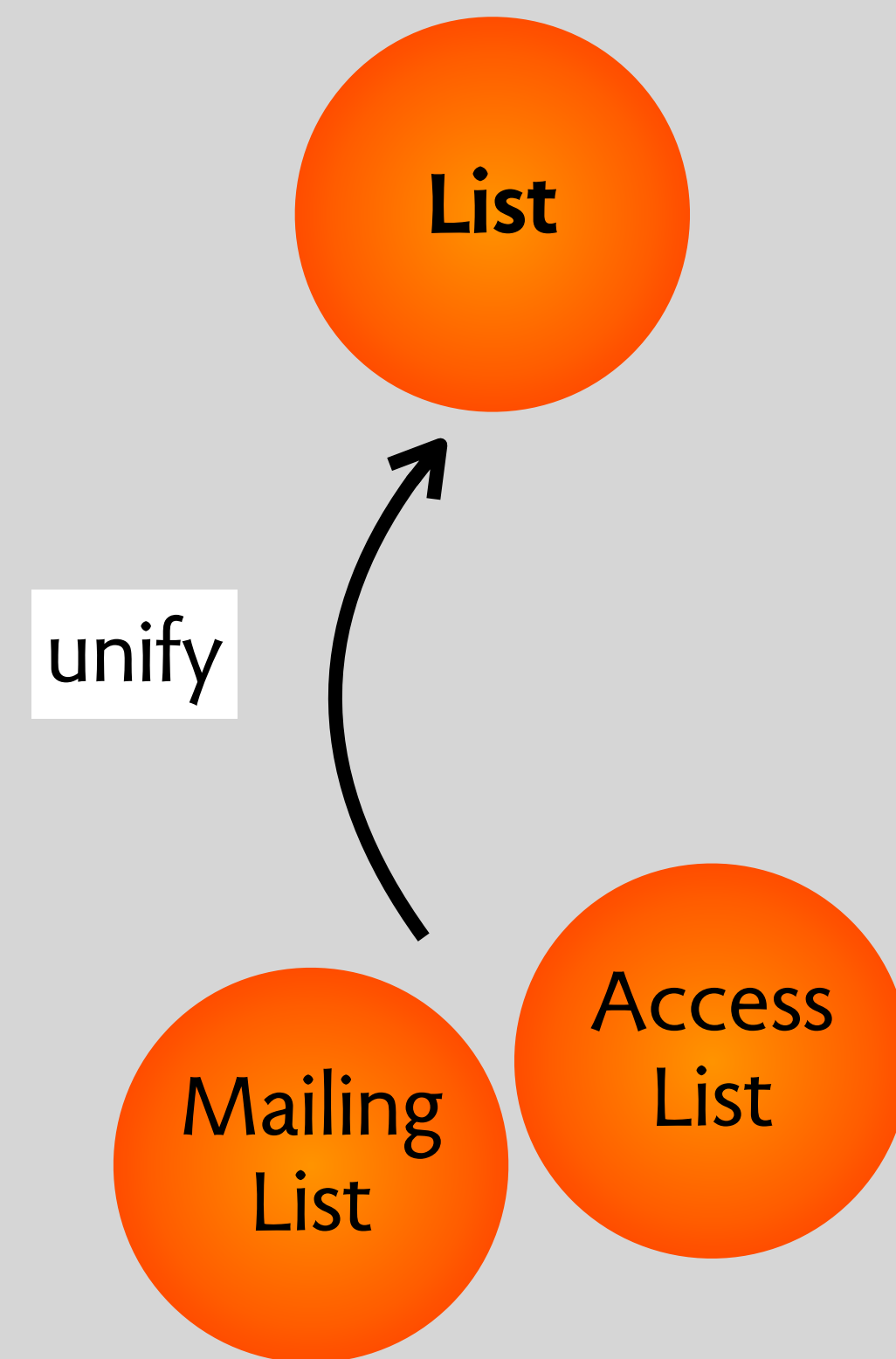
can create admin list with no login users!

WebMoira List Manager : Daniel Jackson Help | My Lists | Undo Log (1)

List Name: dnj-play1
Description: none
Attributes: active, moira mailing list
Permissions: private, visible
Last Modified: by dnj with moiraws on 22-mar-2022 09:39:00

[Edit](#)

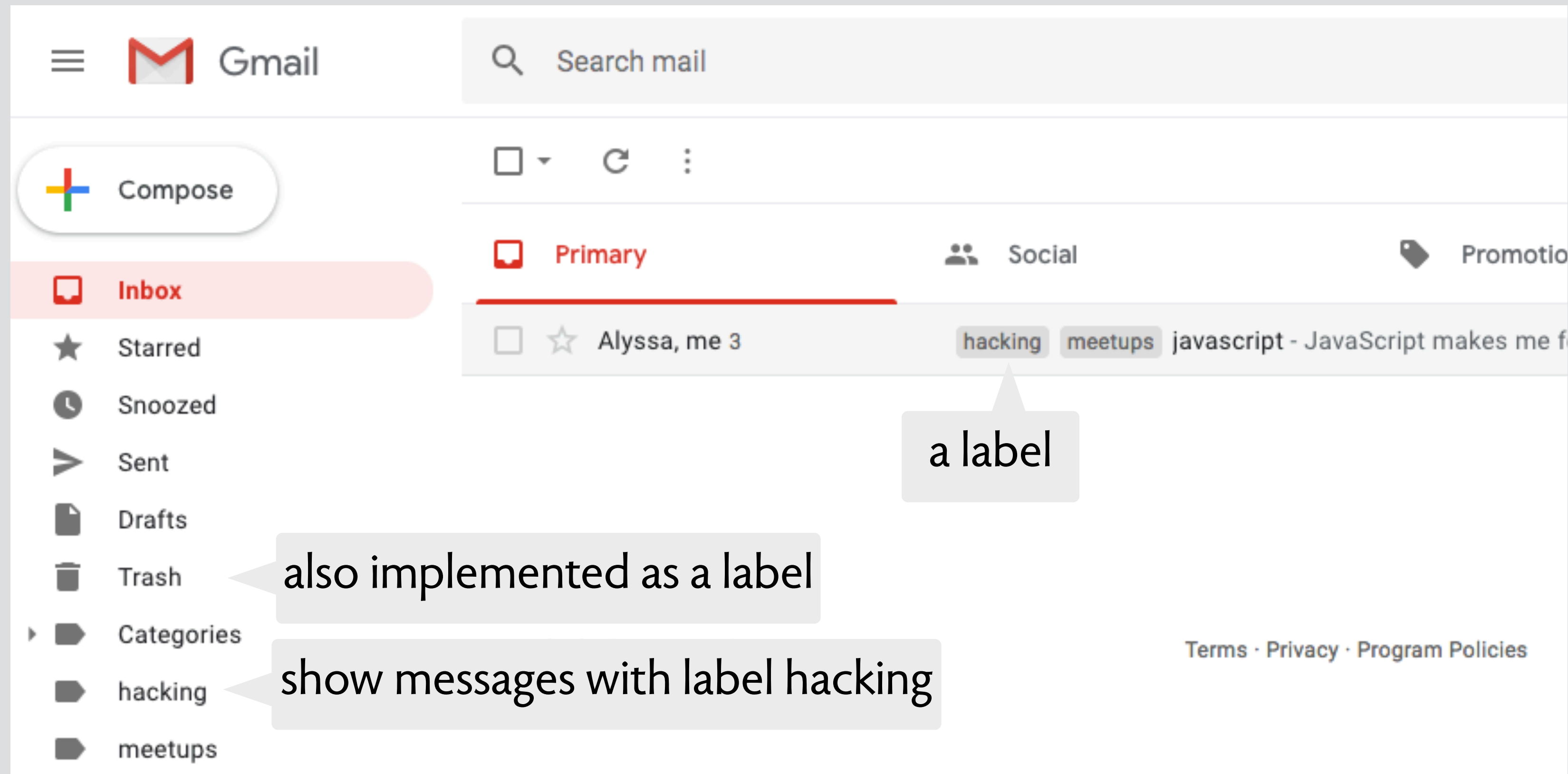
Members	Administrators
Add Member: <input type="text"/> Add	Owner: dnj-play2 (List)
Leave List: Remove Me	Change Owner: <input type="text"/> Change
MIT Users	Add Administrator: <input type="text"/> Add
Daniel Jackson (dnj) remove	Leave Owner List: Remove Me
Email Addresses	MIT Users
daniel@dnj.photo remove	Daniel Jackson (dnj) remove

















unifying concepts simplifies UX and code (but a few snags)

Gmail's labels & categories

labels in Gmail



Gmail's categories

 Primary	 Social 23 new	 Promotions 100+ new	+
<input type="checkbox"/>  	Google	New sign-in from Chrome on Mac - New sign-in from Ch	 12:30 pm
<input type="checkbox"/>  	Keith Muhammad at DeMont.	DeMontrond Auto Group - 14101 North Freeway Housto	12:19 pm
<input type="checkbox"/>  	AT&T High Speed Internet.	AT&T High Speed Internet Service Activation - Your A1	10:37 am
<input type="checkbox"/>  	Keith Muhammad at DeMont.	DeMontrond Auto Group - 14101 North Freeway Housto	Aug 26
<input type="checkbox"/>  	betterbatonrougejobs.com	Job Update -- 2015-08-26 - Looking For An Advantage W	Aug 26

category tab settings

Categories:

[Learn more](#)

- Primary
- Social
- Promotions
- Updates
- Forums

Starred messages

- Include starred in Primary



Choose which message categories to show as inbox tabs. Other messages will appear in the Primary tab.

categories are listed under labels

Settings

General Labels Inbox Accounts and Import Filters and Blocked Addresses Forwarding and POP/IMAP Add-ons Chat and Meet Advanced

Offline Themes

System labels

Inbox

Starred

Snoozed

Important

Sent

Scheduled

Drafts

All Mail

Spam

Trash

is this a good design?

[show](#) [hide](#)

[show](#) [hide](#)

[show](#) [hide](#)

[show](#) [hide](#)

[show](#) [hide](#) [show if unread](#)

[show](#) [hide](#) [show if unread](#)

[show](#) [hide](#)

[show](#) [hide](#) [show if unread](#)

[show](#) [hide](#)

Categories

Show in label list

Show in message list

Categories

[show](#) [hide](#)

Social

[show](#) [hide](#)

[show](#) [hide](#)

Updates

[show](#) [hide](#)

[show](#) [hide](#)

Forums

[show](#) [hide](#)

[show](#) [hide](#)

some reactions when categories came out

Google gets it terribly, terribly wrong with Gmail tabs and makes me angry



By [Mark Wilson](#)

Published 2 years ago

Follow

71 Comments

Like 55

Share 11

37

Tweet 30

[Home](#) › [Quick Tech Tip: Disabling Gmail's Category Tabs](#)

Quick Tech Tip: Disabling Gmail's Category Tabs

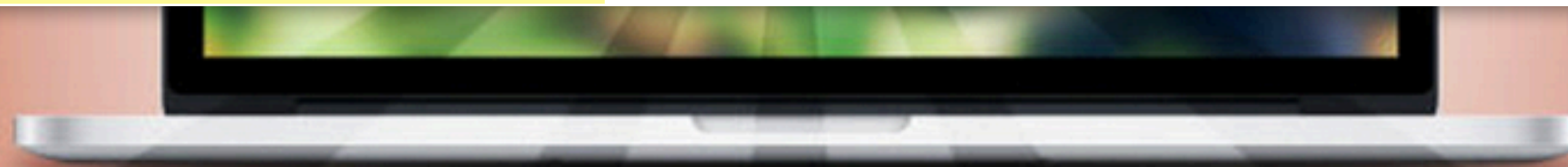
Mon, 07/29/2013 - 12:17 | [Chuck Gray](#)

in [LibraryPoint Blog](#) [Tech Tutorials](#) [Teen Blog](#) [Tech Answers](#) [Science and Technology](#) [Self-Help and Instructional](#)



Are you a Gmail user? Did you wake up a week or two ago to find that your new messages were now being automatically organized by Gmail into tabs of different, pre-determined categories? And, did you think, like me, that they were **really ugly, stupid, and unnecessary?** Here's a quick tip on how to rid yourself of them!

see that tabs were now available to me. Excitement was short-lived, however; it **quickly became apparent that this new feature is a disaster.**



Why the Tabs Are So Confusing

The tabs do give you a convenient way to automatically sort your inbox according to Gmail's preset categories and get notifications at a glance for when new emails come in.

However, the tabbed view introduces a new, not-so-clear element in Gmail called "categories."

The problem is, you already have labels that *also* match these categories. Gmail, for example, adds Social Updates, Promotions, and Forums as SmartLabels in the left menu. The "Notifications" SmartLabel corresponds to the Updates tab (I wonder why they didn't just call the tab Notifications), but

SmartLabels are not the same as Categories. Gmail's pre-designed SmartLabel filters makes it seem like that, but they're really two different things.

how google explains labels

Gmail Help



GMAIL 

FORUM

Using labels

Labels help you organize your messages into categories -- work, family, to do, read later, jokes, recipes, any category you want. Labels do all the work that folders do, but with an added bonus: you can add more than one to a message.

	Label concept	Category concept
purpose	organize messages	organize messages
principle	user (or system) adds label to message; filter on label shows message	user (or system) adds category to message; then filter on category shows message
can associate with tabs?	no	yes
user can create new ones?	yes	no
apply outside inbox too?	yes	no

specialization brings no benefit, and actually limits options

design moves

unify/specialize

good unify **Moira**
bad unify **Zoom**
bad specialize **Gmail**

tighten/loosen

good loosen **Keynote**
good tighten **Gmail**
good tighten **MacOS**
good tighten **Yellkey**
bad tighten **Calendars**
??? **Facebook**

synergy!