

design moves

Daniel Jackson · Autodesk, Boston · March 17-18, 2025

a mechanical
analogy

unify-specialize: tradeoff simplicity/specificity



set of wrenches

unify



adjustable wrench



macro lens

specialize



general-purpose lens

tighten-loosen: tradeoff automation/flexibility



tighten



light pull / door lock

airplane toilet lock



loosen



dimmers with separate controls

rotary dimmer switch

unify-specialize:
bad moves

unify-specialize: tradeoff simplicity/specificity



set of wrenches

unify



adjustable wrench



macro lens

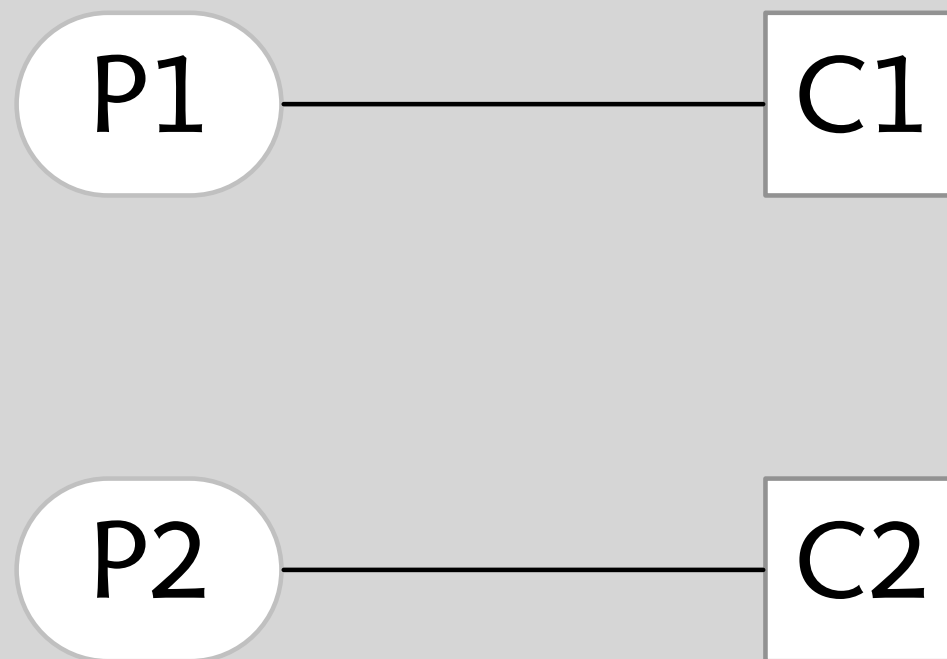
specialize



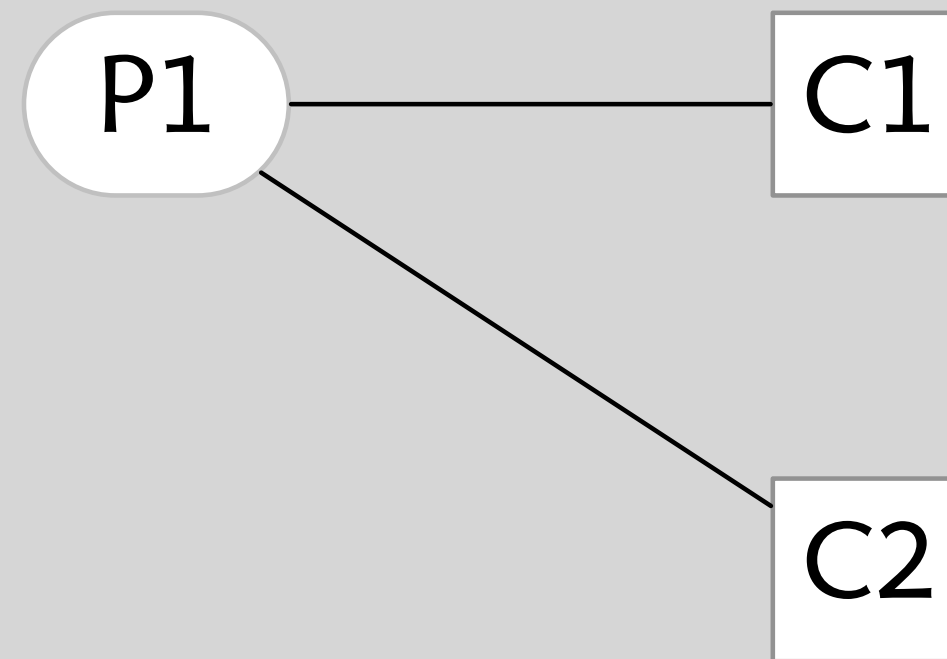
general-purpose lens

the specificity rule

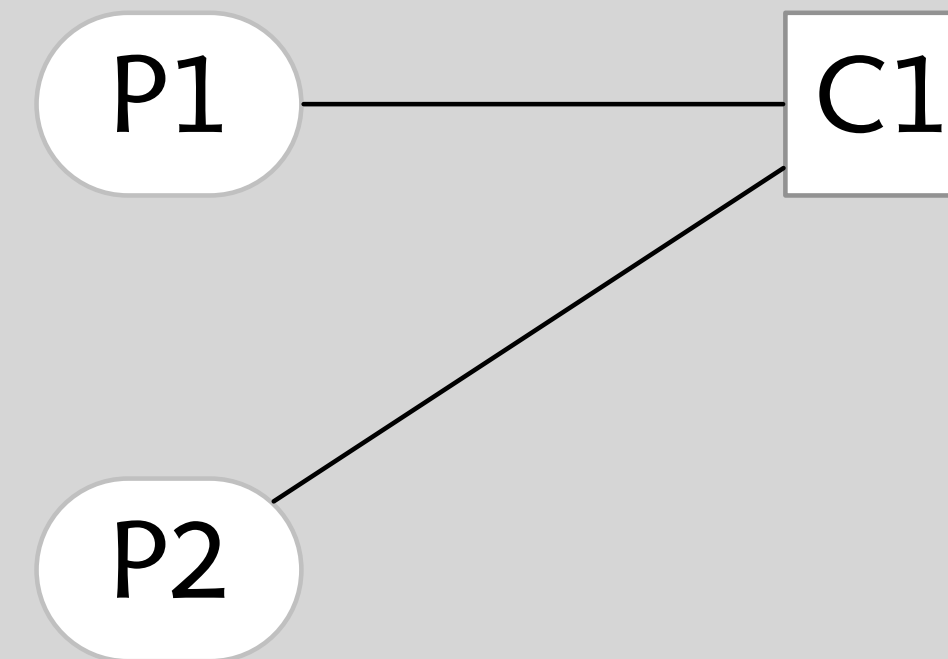
specificity
purposes:concepts are 1:1



redundancy
>1 concept per purpose



overloading
>1 purpose per concept



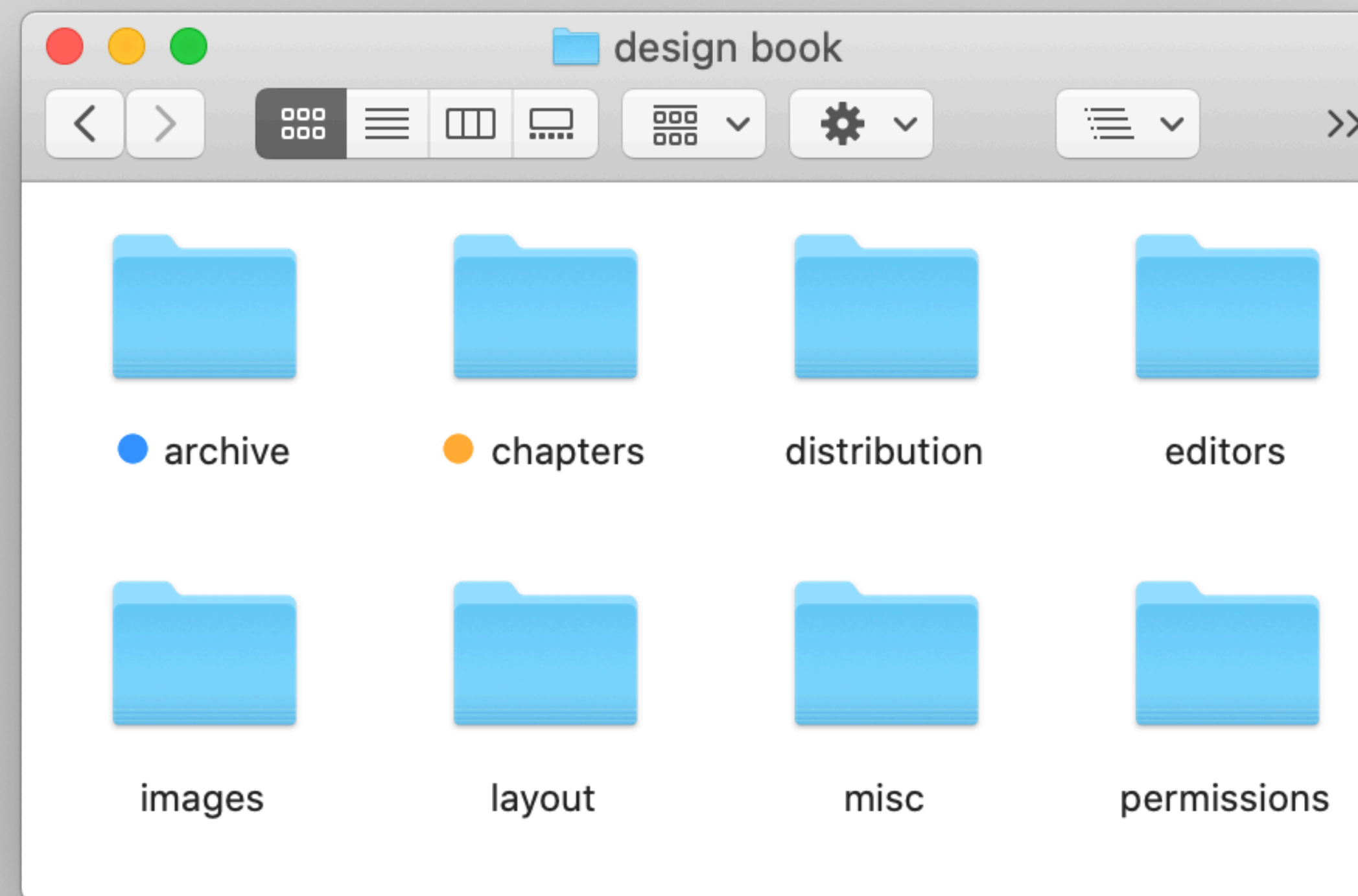
redundancy
in Gmail



concept Label

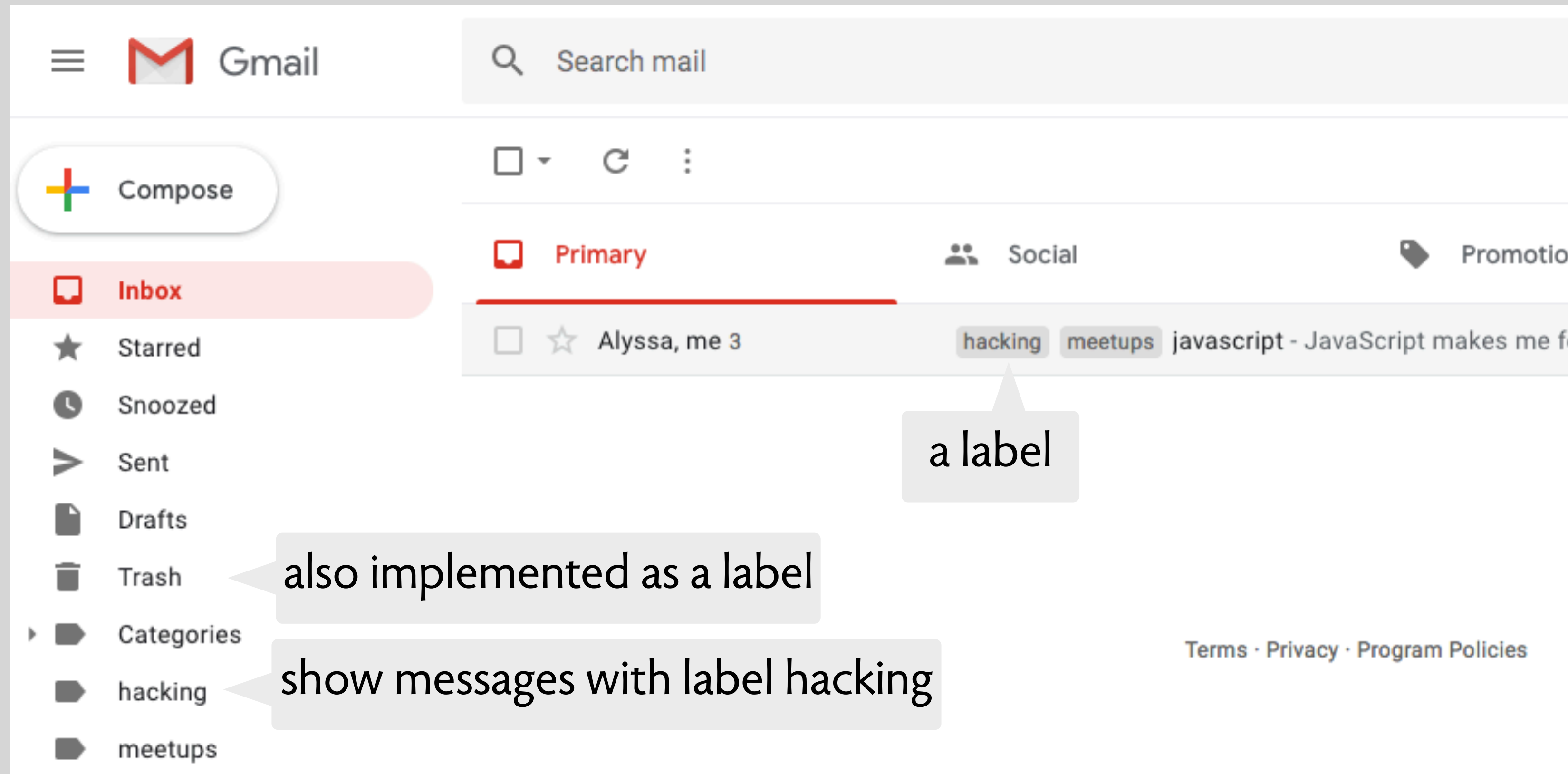
purpose organize items

principle if label is added to an item and not removed, then filtering on that label will display that item

















labels shown as colored dots in macOS finder

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.

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

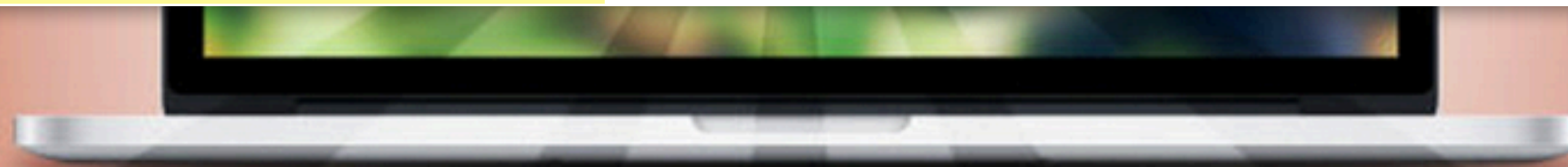
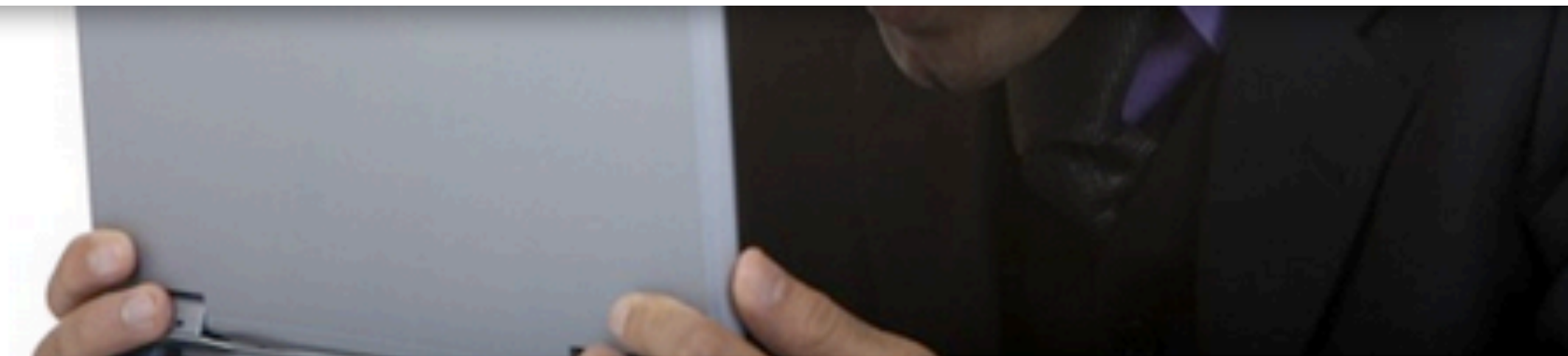
Mon, 07/29/2013 - 12:17 | [Chuck Gray](#)

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

fundamental commonality, needless differences
 one concept would suffice

overloading
in Fuji cameras

a lovely camera fuji x100



complex menu system: image quality setting



aspect ratio



image size setting



non-standard ratio + raw?



problem #1: no non-standard ratio unless also save JPG!



raw image showing non-destructive aspect ratio crop

problem #2: very few ratio options

change.org

Petition details Comments Updates



Fuji, give us 4:3, 5:4, and 6:7 aspect ratios on X-series cameras

636 have signed. Let's get to 1,000!

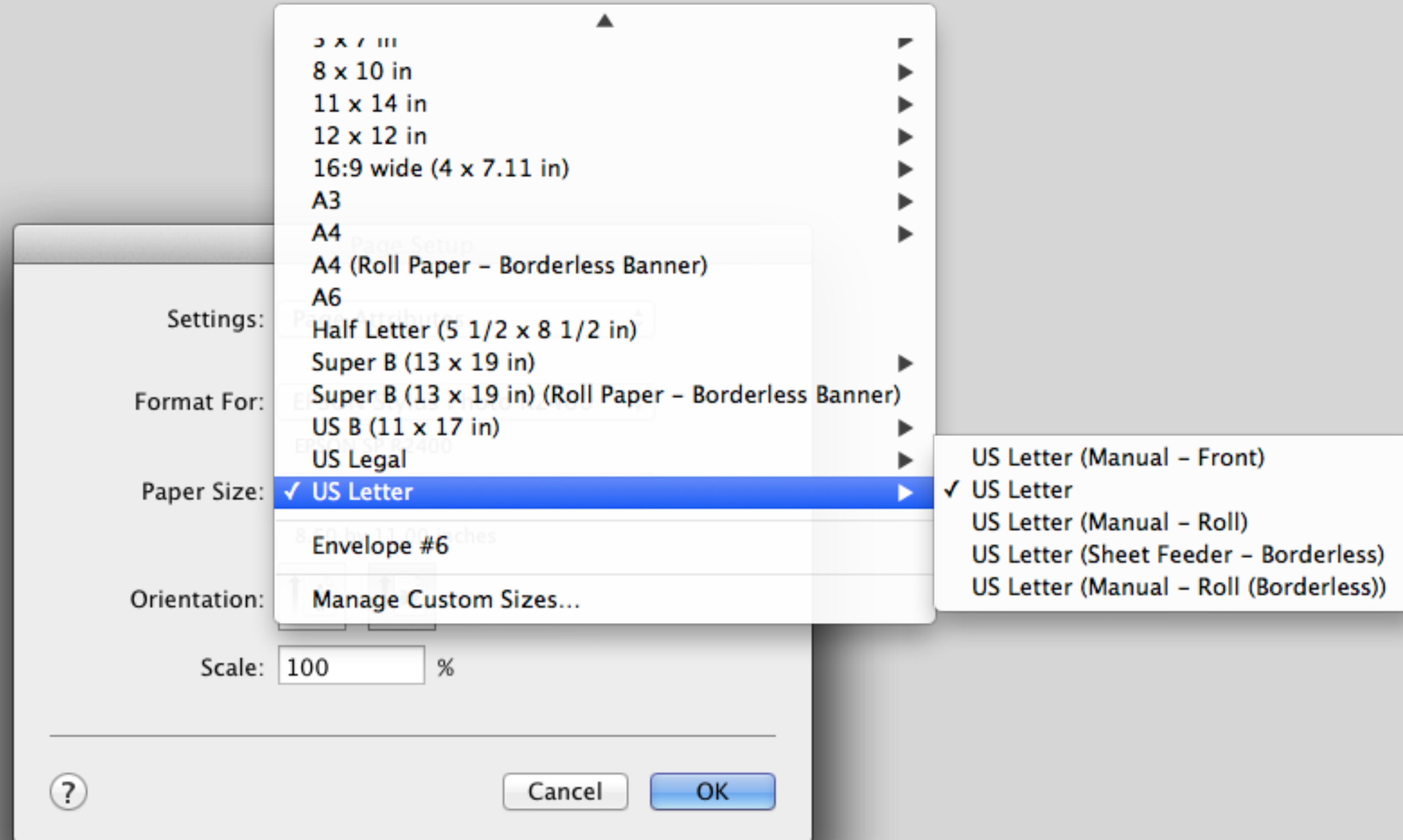


At 1,000 signatures, this petition is more likely to be featured in recommendations!

L	3:2	664
L	16:9	681
L	1:1	702
M	3:2	707
M	16:9	719
M	1:1	734
S	3:2	746

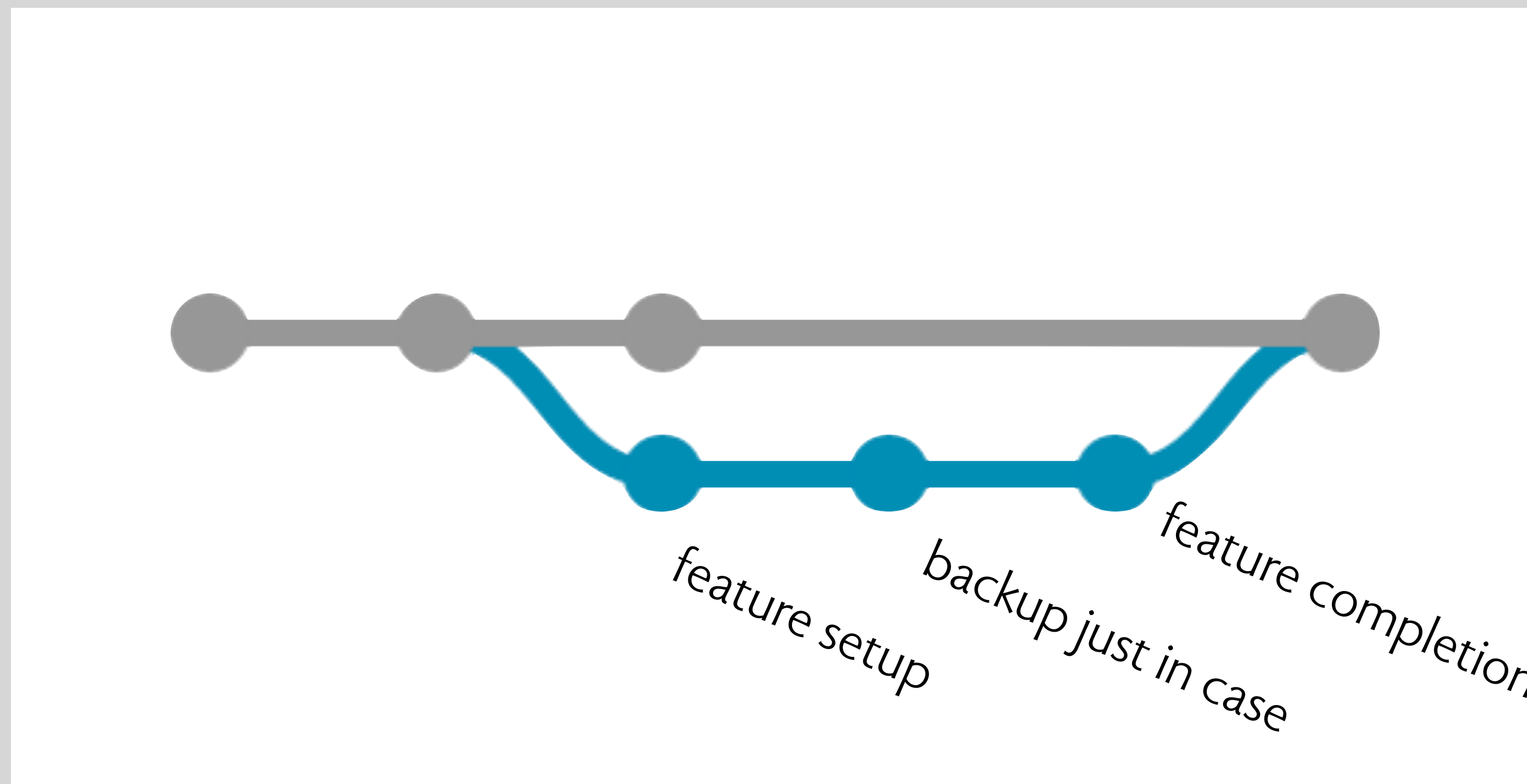
other
overloading
examples

overloading Epson driver

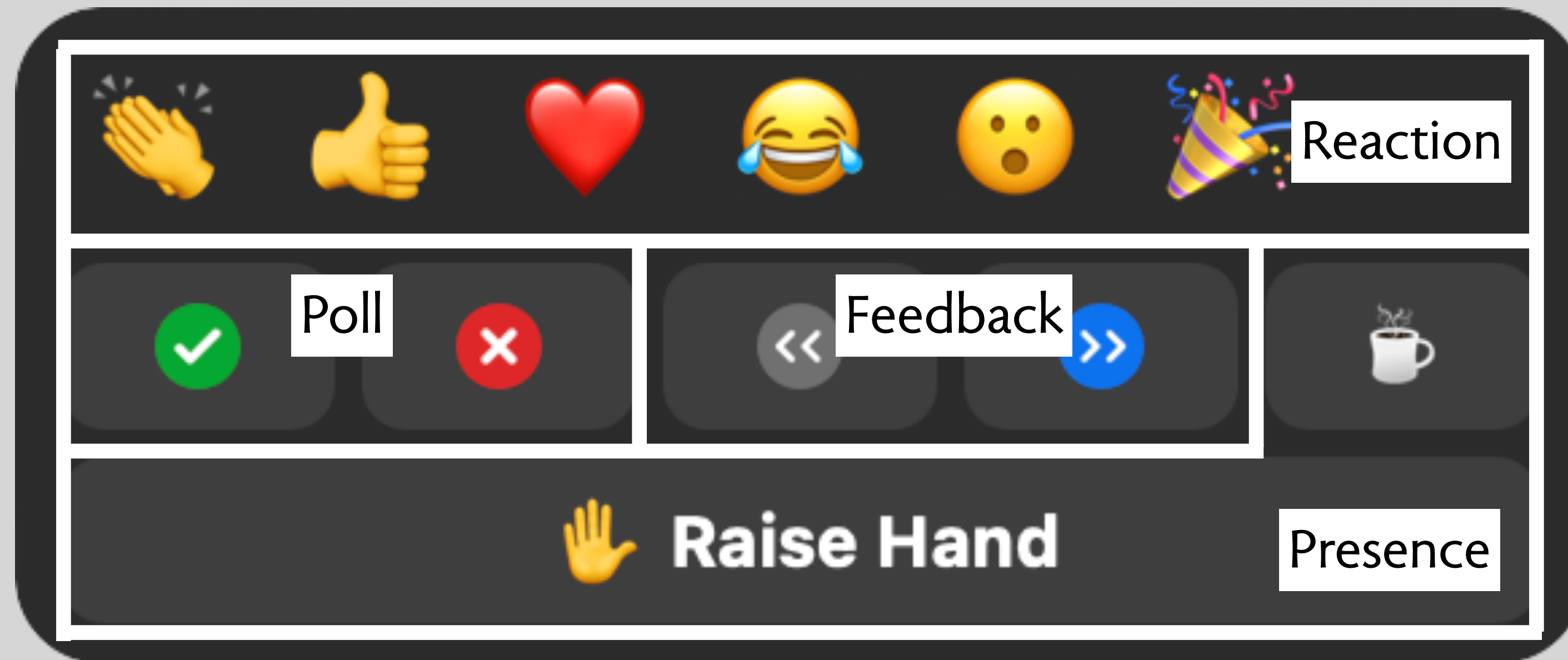


result: can't create custom size for front loading
also, page size presets in Lightroom hold feed setting

overloading commit concept

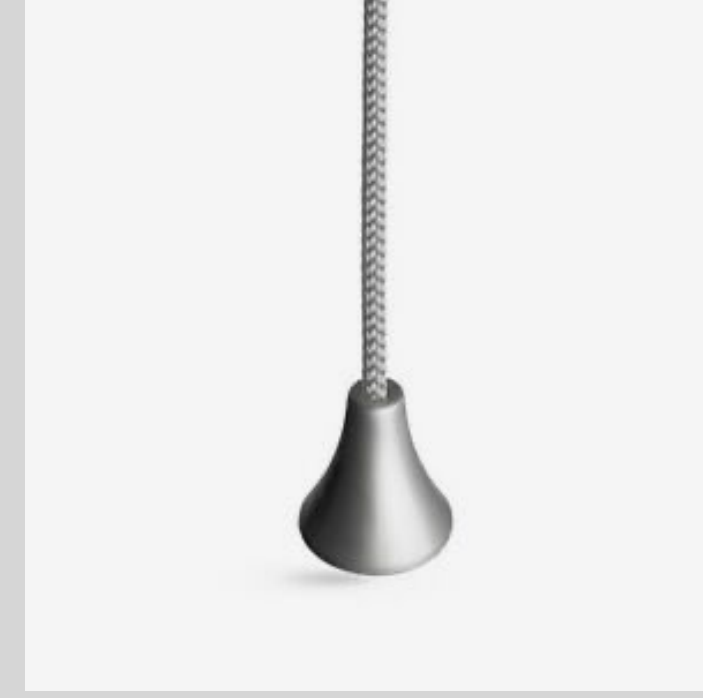


overloading zoom reaction



tighten/loosen:
bad moves

tighten-loosen design moves: tradeoff automation/flexibility



tighten



light pull / door lock

airplane toilet lock



loosen



dimmers with separate controls

rotary dimmer switch

*surprising syncs
in calendar apps*



Arvind Satyanarayan

November 15, 2018 at 2:04 PM

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

[Details](#)

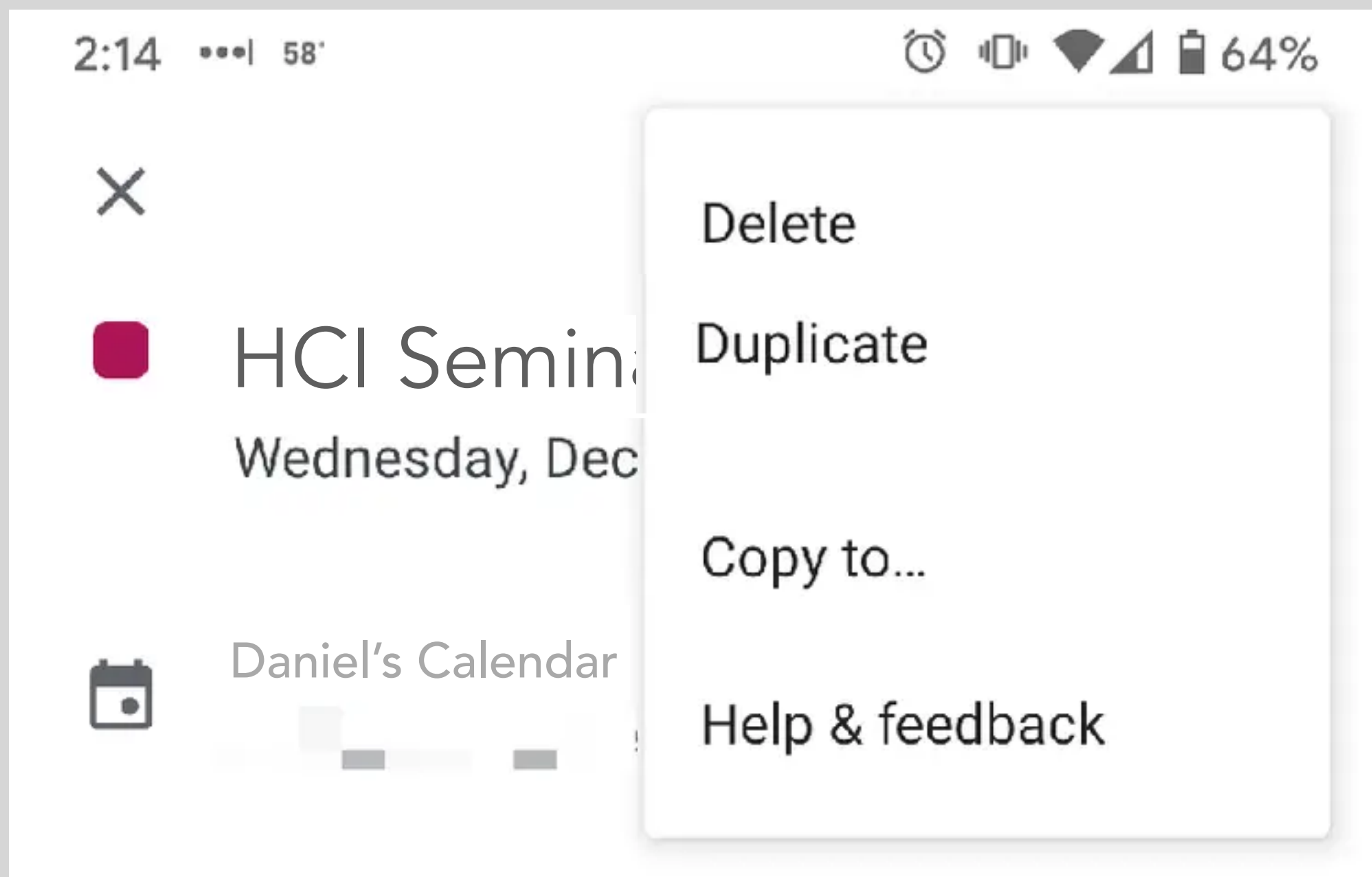
Cc: seminars@csail.mit.edu, HCI-Seminar@lists.csail.mit.edu



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.

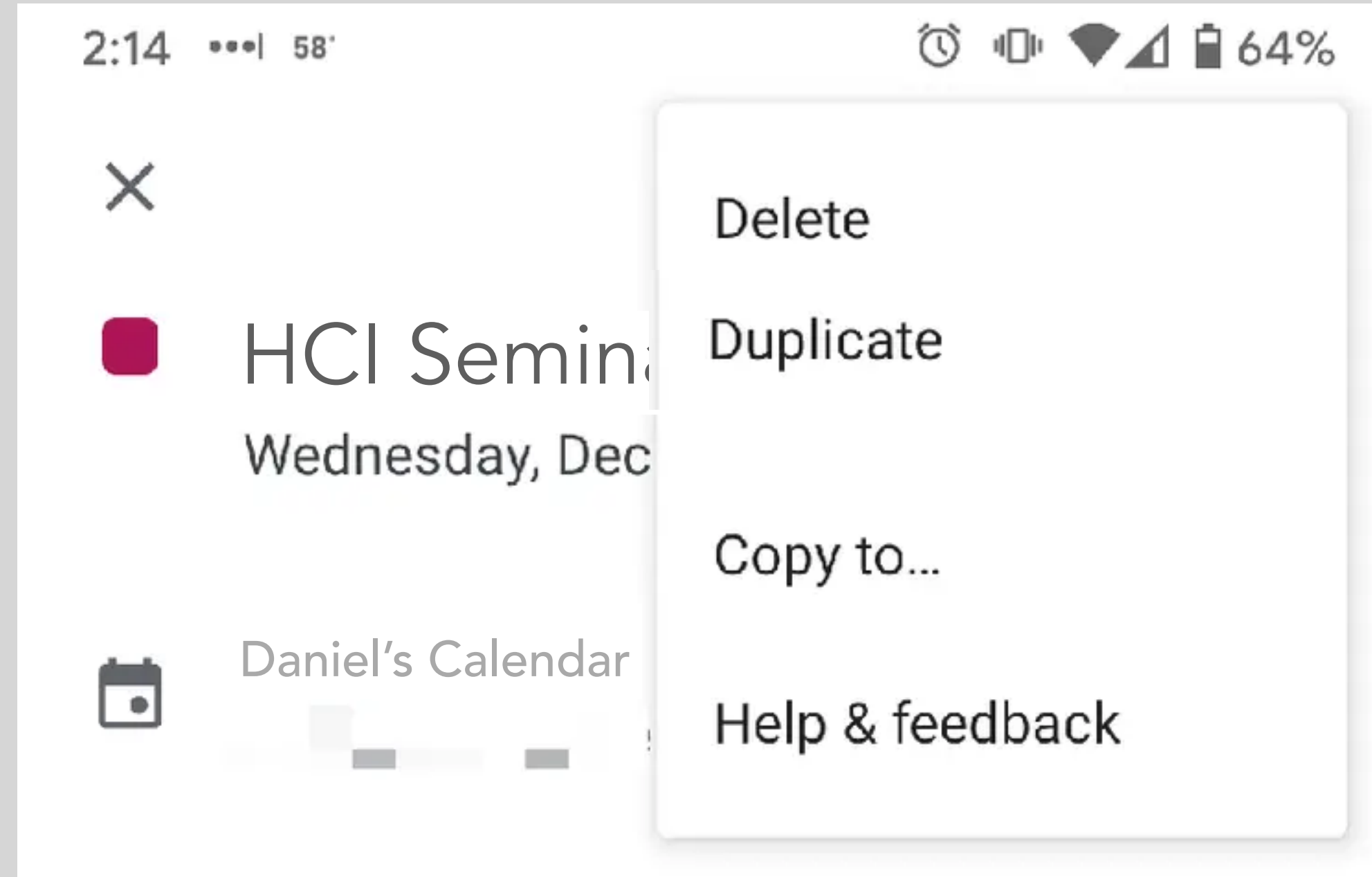
1. First, open Google Calendar.
2. Tap on the event you wish to cancel.
3. Press on the three dots in the top right corner of the event window.
4. Select Delete.
5. Tap Delete event. Google Calendar will send a cancellation email to the guests.

Mar 22, 2021

<https://wpamelia.com> › Blog

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





concept Calendar

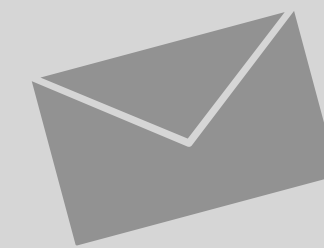
purpose record upcoming engagements

actions

create an event

delete an event

...



concept Invitation

purpose coordinate event participants

actions

accept invitation

decline invitation

...





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?



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

*from address
in Apple Mail*

from address and outgoing server changed independently

Account Information | Mailbox Behaviors | Server Settings

Enable this account

Status: Online ●

Description: csail

Email Address:

- ✓ Daniel Jackson <dnj@csail.mit.edu>
- Daniel Jackson <dnj@mit.edu>
- Edit Email Addresses...

Download Attachments:

Send large attachments

Account Information | Mailbox Behaviors | Server Settings

Incoming Mail Server (IMAP)

User Name:

Password:

Host Name:

Automatically manage connection settings

[Advanced IMAP Settings](#)

Outgoing Mail Server (SMTP)

Account:

User Name:

Password:

Host Name:

[Edit SMTP Server List...](#)

Port: Use TLS/SSL

Authentication:

a reasonable sync?
match email from
based on recipient

a missing sync
no change to outgoing
when from changes

examples of
good moves

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

card C issued
for user U

card C authenticates
user U

Directory

user U registered
at floor F

get floor for user U
returns F

Port

enter floor F
indicates bank B

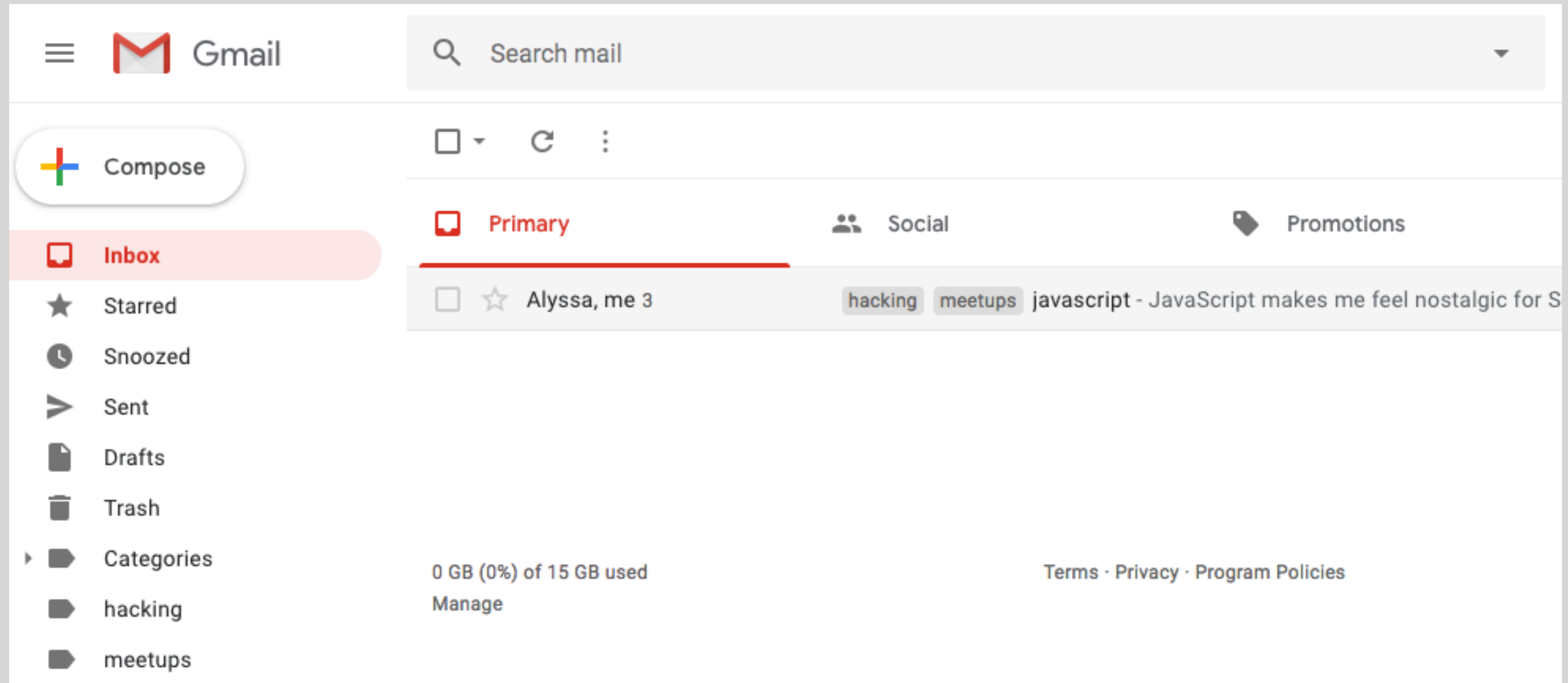
elevator arrives
at bank B

elevator stops
at floor F

increased automation, better security, reduced flexibility

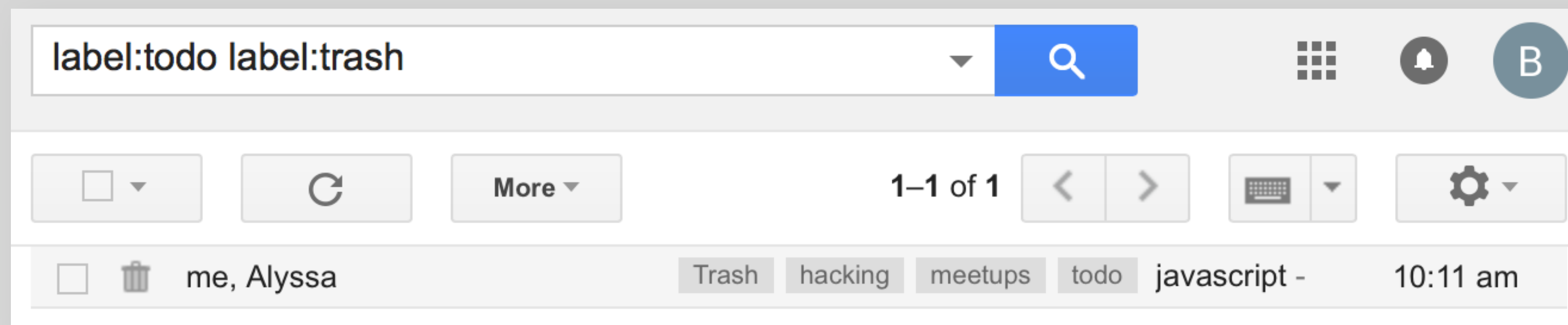
Gmail's email labels

the role of labels in Gmail



just a label lookup

use sent, trash in filters



what other benefits does this design bring?

what's the sync?



concept Trash

purpose allow undeletion

principle if an object is deleted, and the trash is not emptied, it can be restored; if an object is deleted and the trash is emptied, the object is gone but its space is regained

actions

delete (o: Object)

restore (o: Object)

empty ()



concept Labeling

purpose organize items

principle if label is added to an item, then filtering on that label will display that item

actions

add (l: Label, i: Item)

remove (l: Label, i: Item)

filter (ls: set Label): set Item

syncs include rules like these and their converse

when Trash.delete(i) **then** Labeling.add ('trashed', i)

when Trash.restore(i) **then** Labeling.remove ('trashed', i)

Moira's mailing lists

a Moira mailing list

WebMoira List Manager : Daniel Jackson

[Help](#) | [My Lists](#) | [Undo Log \(2\)](#)

List Name: concept-design

Description: concept design

Attributes: active, moira mailing list

Permissions: private, visible

Last Modified: by dnj with moiraws on 25-nov-2024 19:54:56

[Edit](#)

Members

Add Member: [Add](#)

Leave List: [Remove Me](#)

MIT Users

Daniel Jackson (dnj) [remove](#)

Email Addresses

daniel@dnj.photo [remove](#)

Administrator

what if we want >1 owner?

Owner: Daniel Jackson (dnj)

Change Owner: [Change](#)

solution: make the owner a ... mailing list!

WebMoira List Manager : Daniel Jackson

[Help](#) | [My Lists](#) | [Undo Log \(1\)](#)

List Name: concept-design

Description: concept design

Attributes: active, moira mailing list

Permissions: private, visible

Last Modified: by dnj with moiraws on 25-nov-2024 20:00:17

[Edit](#)

what other benefits
does this design
bring?

Members

Add Member: [Add](#)

Leave List: [Remove Me](#)

MIT Users

Daniel Jackson (dnj) [remove](#)

Email Addresses

daniel@dnj.photo [remove](#)

Administrators

Owner: [dnj-admin \(List\)](#)

Change Owner: [Change](#)

Add Administrator: [Add](#)

Leave Owner List: [Remove Me](#)

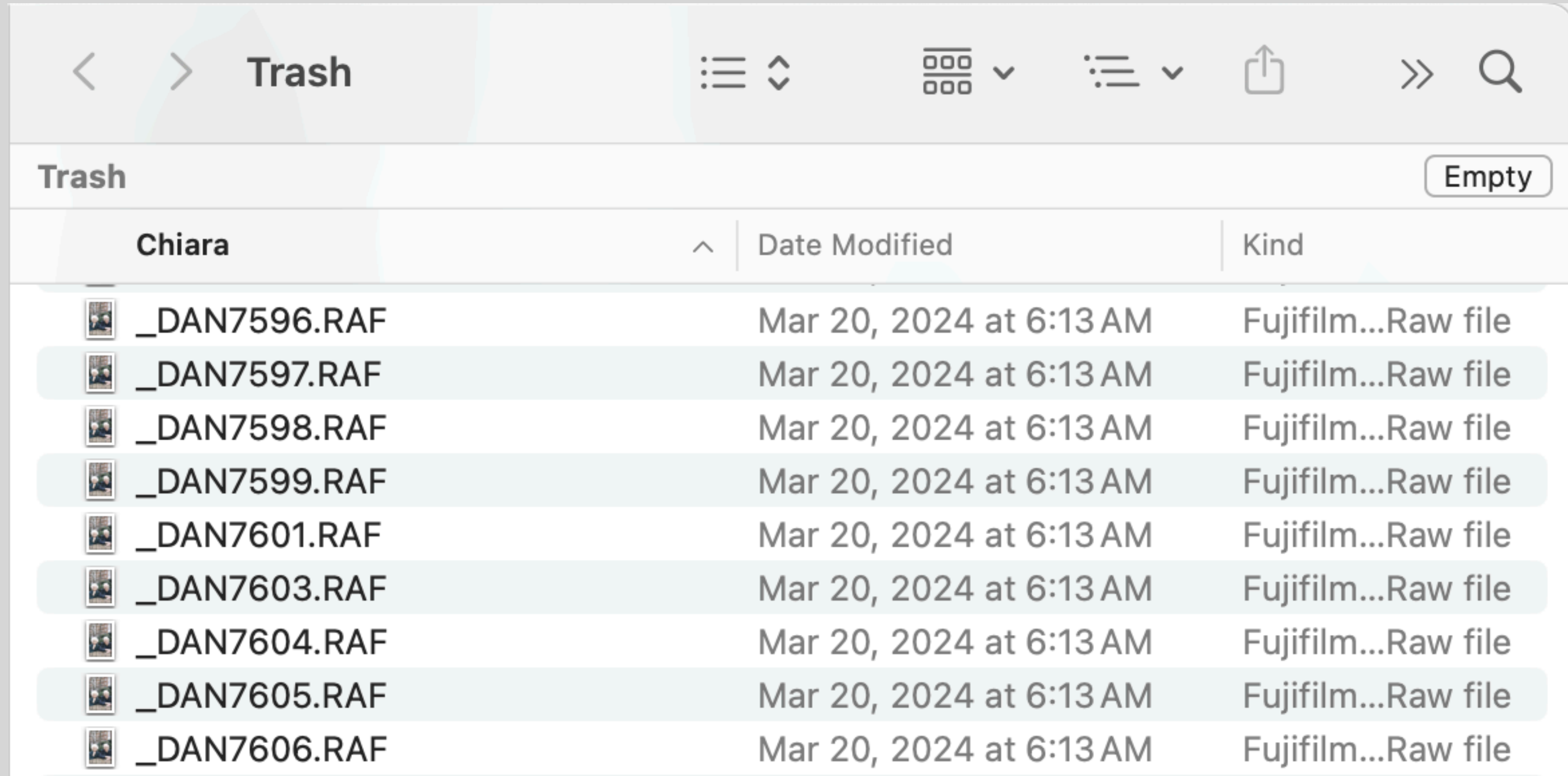
MIT Users

Daniel Jackson (dnj) [remove](#)

[remove](#)

macOS's
trash

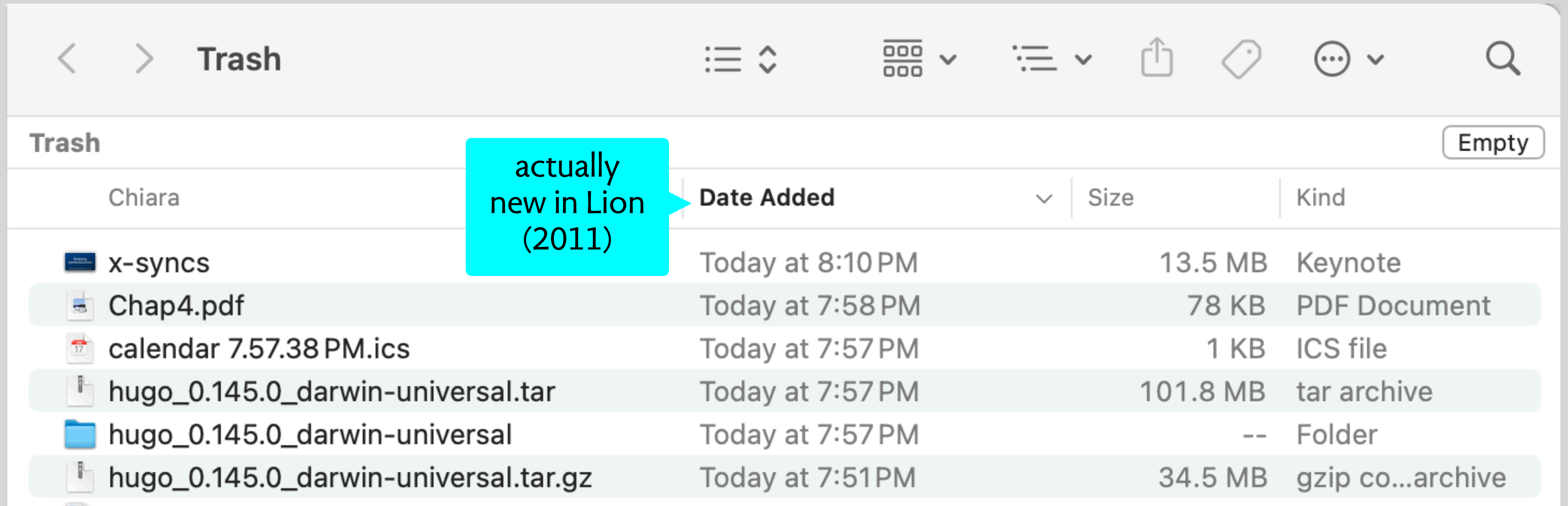
macOS trash is a folder



synchronizes
Folder and Trash
concepts

what benefits
does this bring?

how to sort by deletion date?



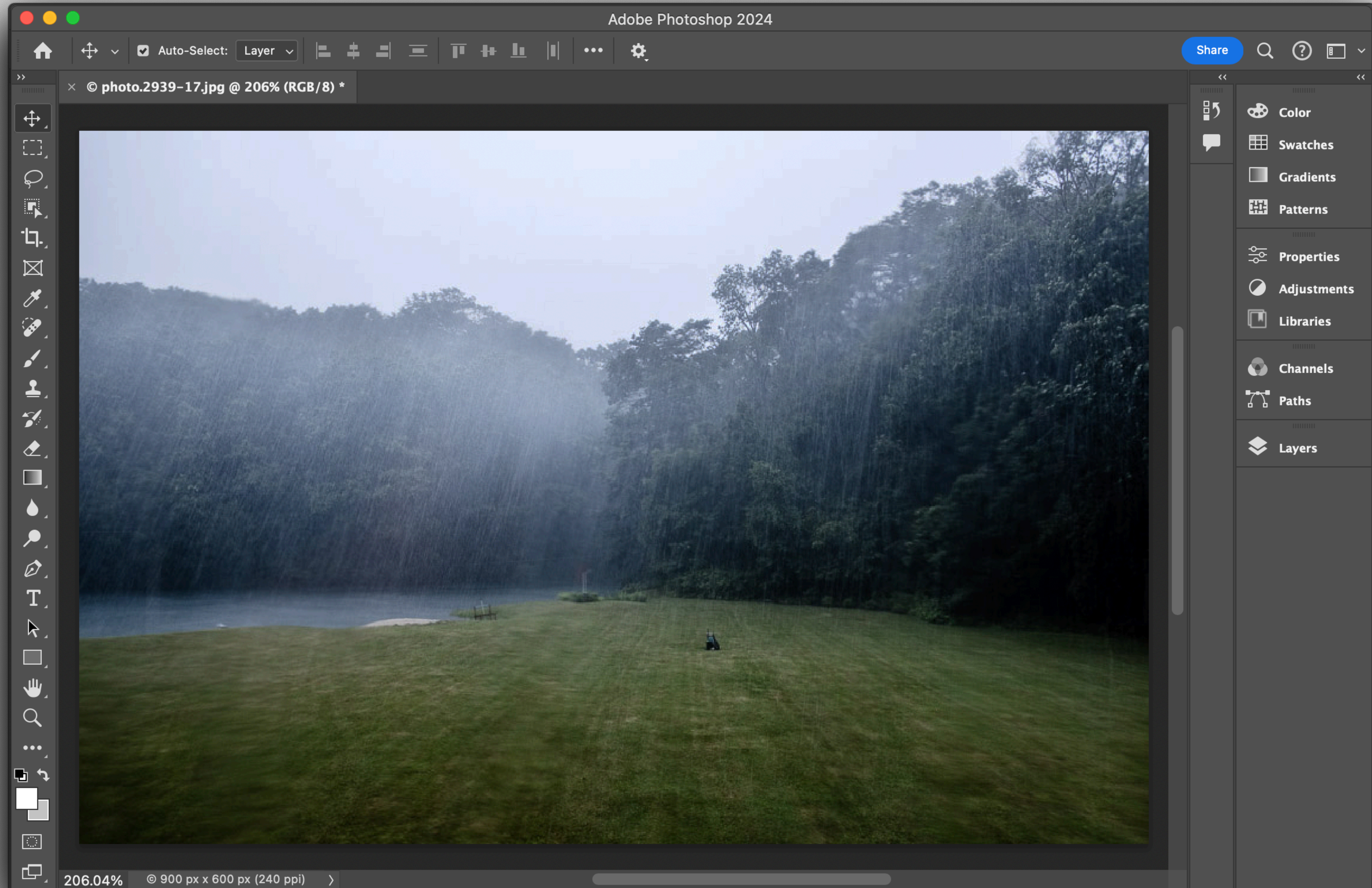
The screenshot shows a macOS Trash window with the following elements:

- Navigation: Back, Forward, and "Trash" label.
- Toolbar: View (Grid, Column), Share, Tag, and Search icons.
- Header: "Trash" label and an "Empty" button.
- Table Headers: "Chiara" (owner), "Date Added" (sorted), "Size", and "Kind".
- Table Rows:
 - x-syncs (Keynote, 13.5 MB, Today at 8:10 PM)
 - Chap4.pdf (PDF Document, 78 KB, Today at 7:58 PM)
 - calendar 7.57.38 PM.ics (ICS file, 1 KB, Today at 7:57 PM)
 - hugo_0.145.0_darwin-universal.tar (tar archive, 101.8 MB, Today at 7:57 PM)
 - hugo_0.145.0_darwin-universal (Folder, --, Today at 7:57 PM)
 - hugo_0.145.0_darwin-universal.tar.gz (gzip co...archive, 34.5 MB, Today at 7:51 PM)

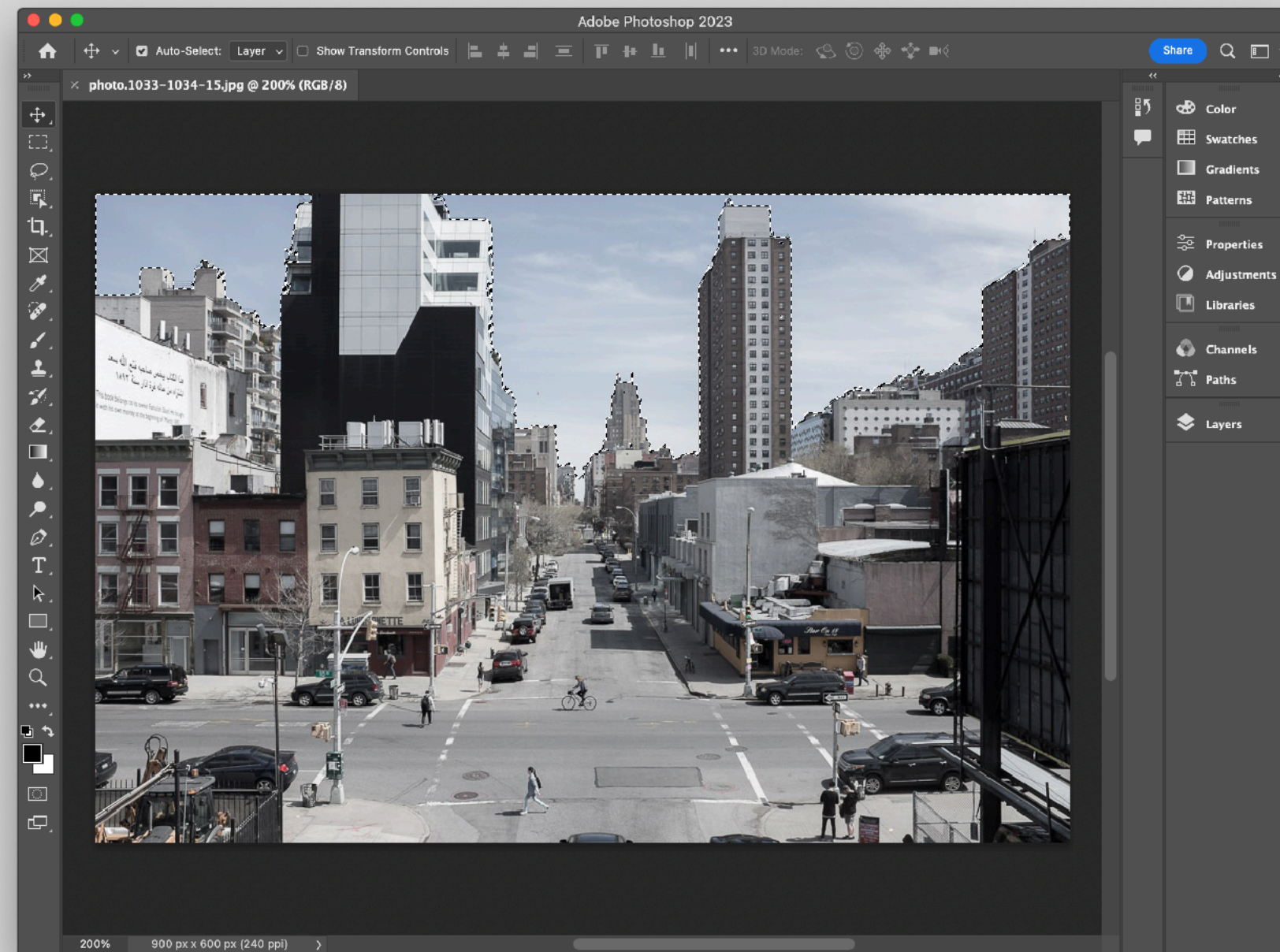
A red callout box points to the "Date Added" header with the text: "actually new in Lion (2011)".

Photoshop's selections

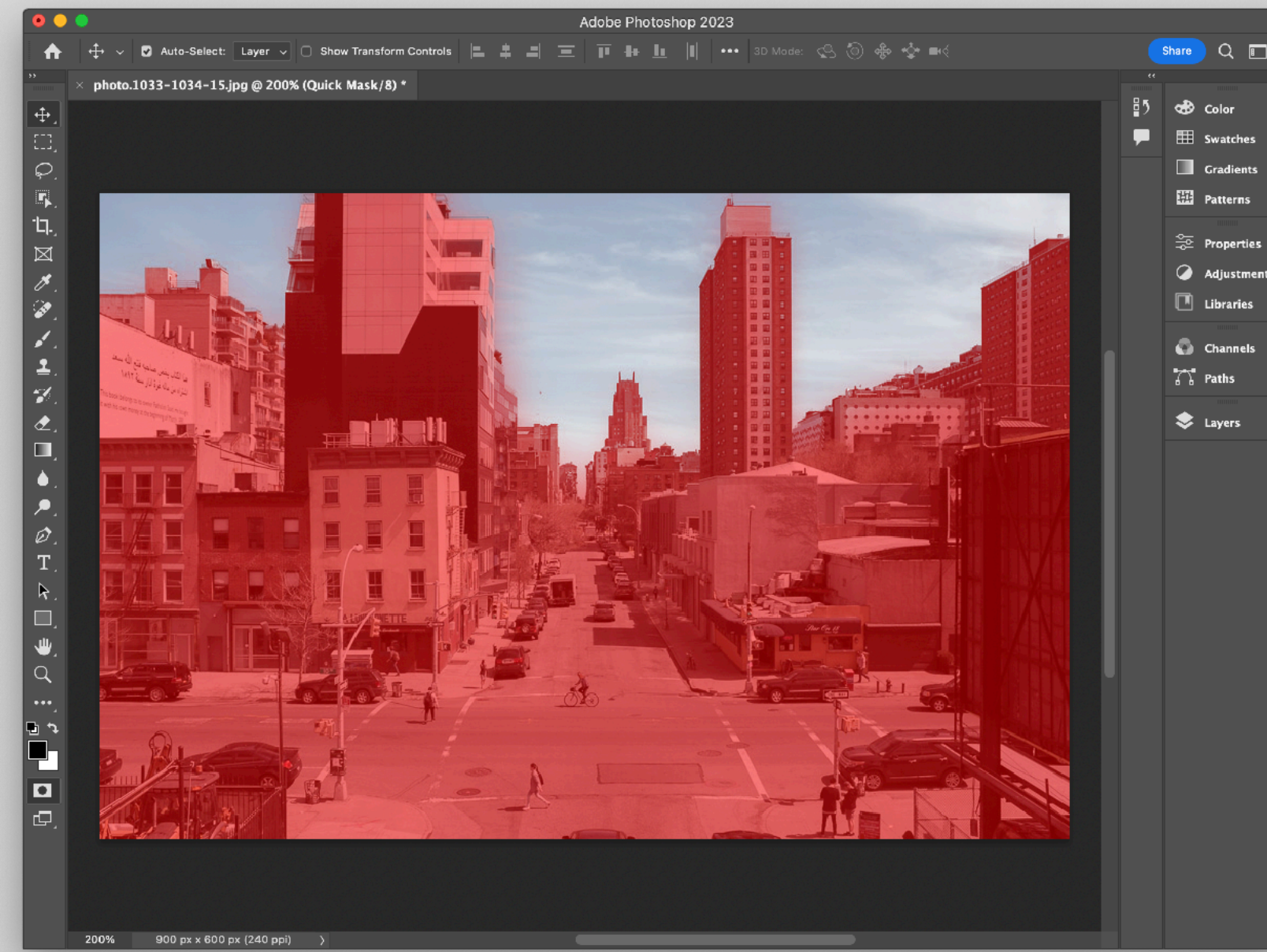
how to darken the sky



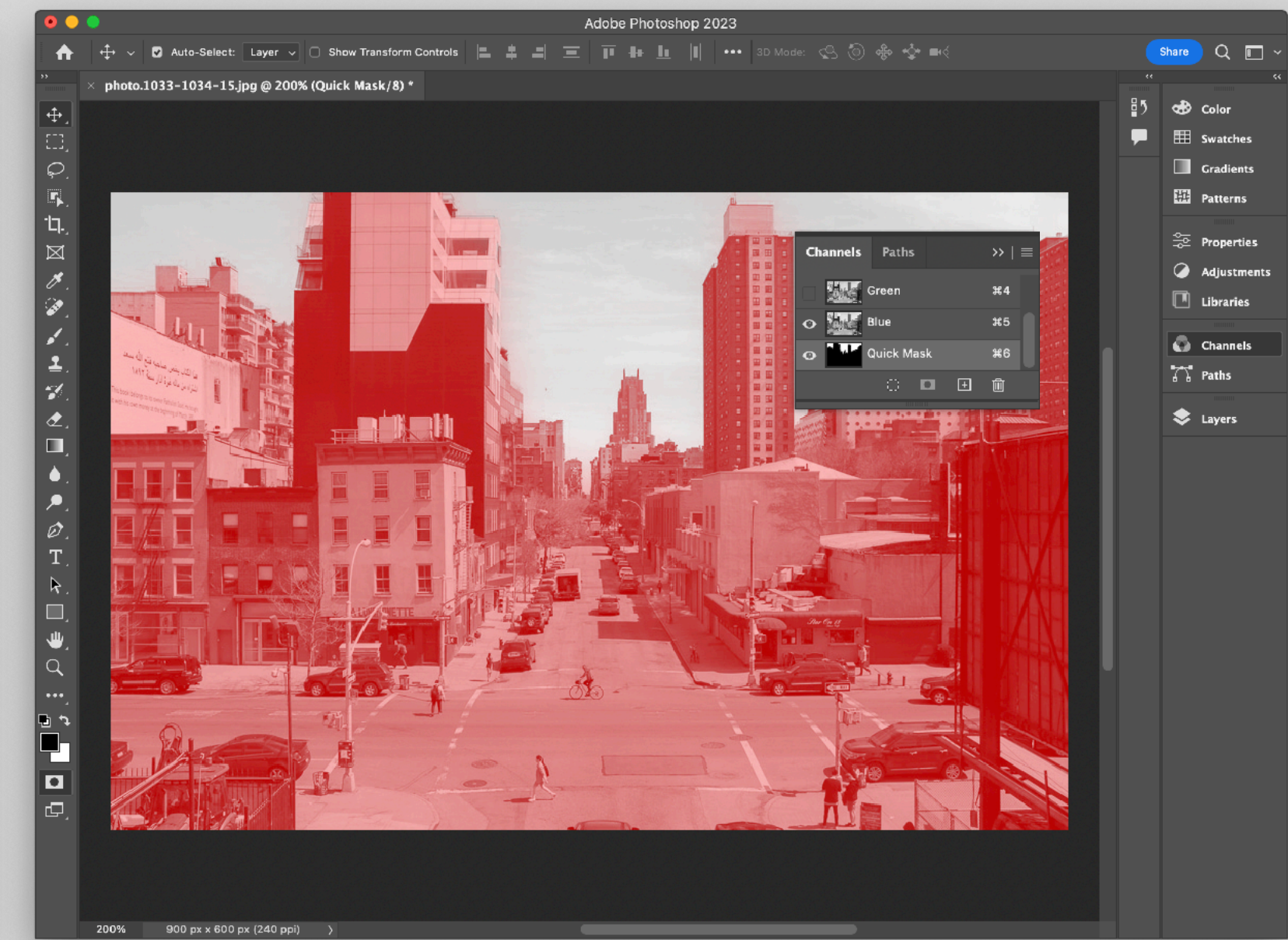
the mother of all synergies



selection (shown as “marching ants”)



edit selection as **mask**

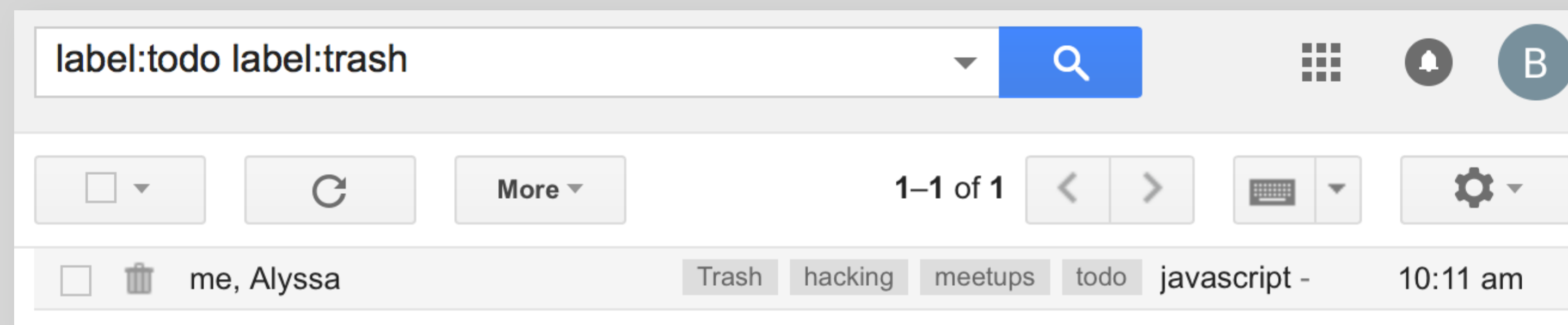
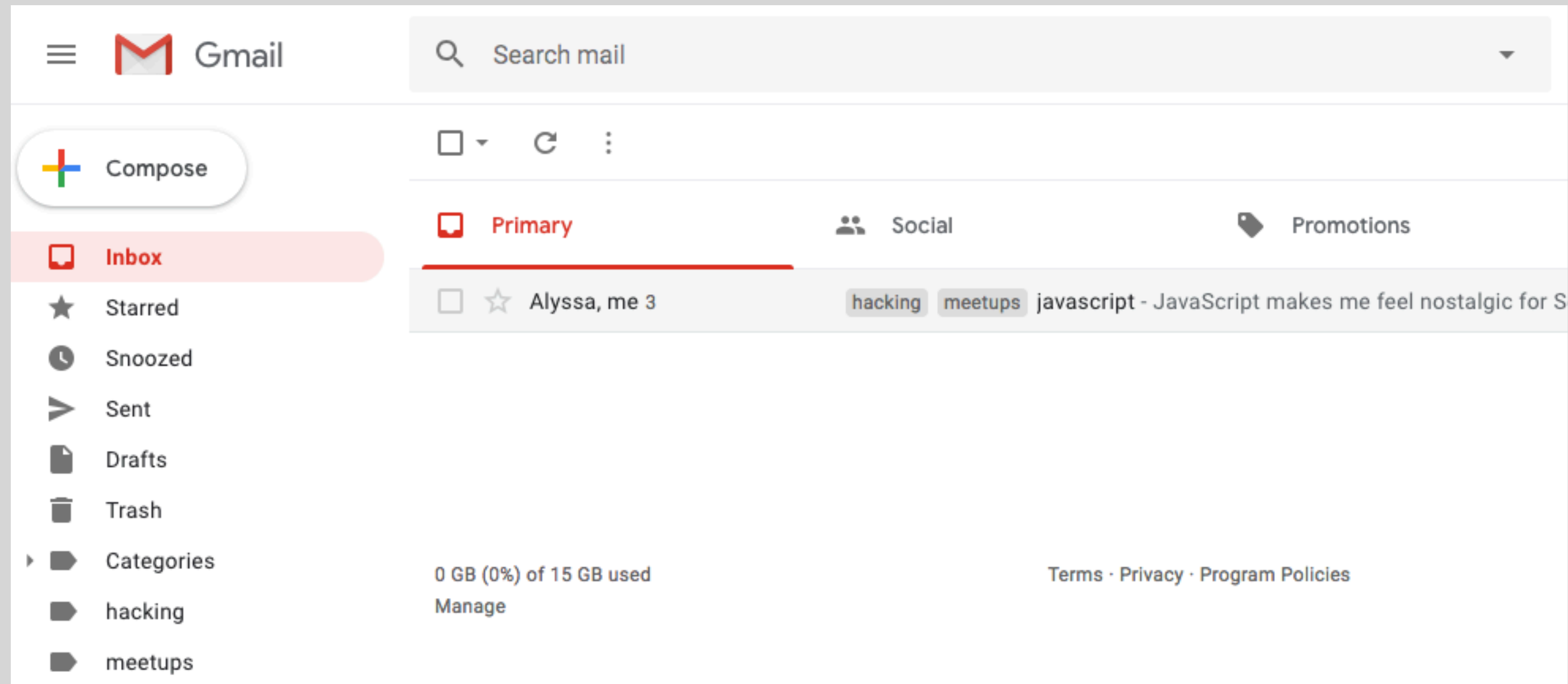


toggle mask as **channel**

selection = mask = channel = grey scale image

*your turn:
no free lunch*

Gmail complications



what new problems might this design result in?

a tricky aspect of this synchronization...

click on trash

1-2 of 2

Empty Trash now (messages that have been in Trash more than 30 days will be automatically deleted)

<input type="checkbox"/>		me, Alyssa (13)	hacking	meetups	todo	javascript - Hello a	11:48 am
<input type="checkbox"/>		Andy from Google	Updates	Ben, welcome to your new Googl			9:01 am

filter on todo and trash

label:todo label:trash

1-1 of 1

<input type="checkbox"/>		me, Alyssa	Trash	hacking	meetups	todo	javascript -	10:11 am
--------------------------	--	------------	-------	---------	---------	------	--------------	----------

filter on something else

label:todo OR label:meetup

Some messages in Trash or Spam match your search. [View messages.](#)

filter on todo label

label:todo

There are no conversations with this label.

moira mailing lists as access control lists

WebMoira List Manager : Daniel Jackson

[Help](#) | [My Lists](#) | [Undo Log \(1\)](#)

List Name: concept-design

Description: concept design

Attributes: active, moira mailing list

Permissions: private, visible

Last Modified: by dnj with moiraws on 25-nov-2024 20:00:17

[Edit](#)

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result in?

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Add Member: [Add](#)

Leave List: [Remove Me](#)

MIT Users

Daniel Jackson (dnj) [remove](#)

Email Addresses

daniel@dnj.photo [remove](#)

Administrators

Owner: [dnj-admin \(List\)](#)

Change Owner: [Change](#)

Add Administrator: [Add](#)

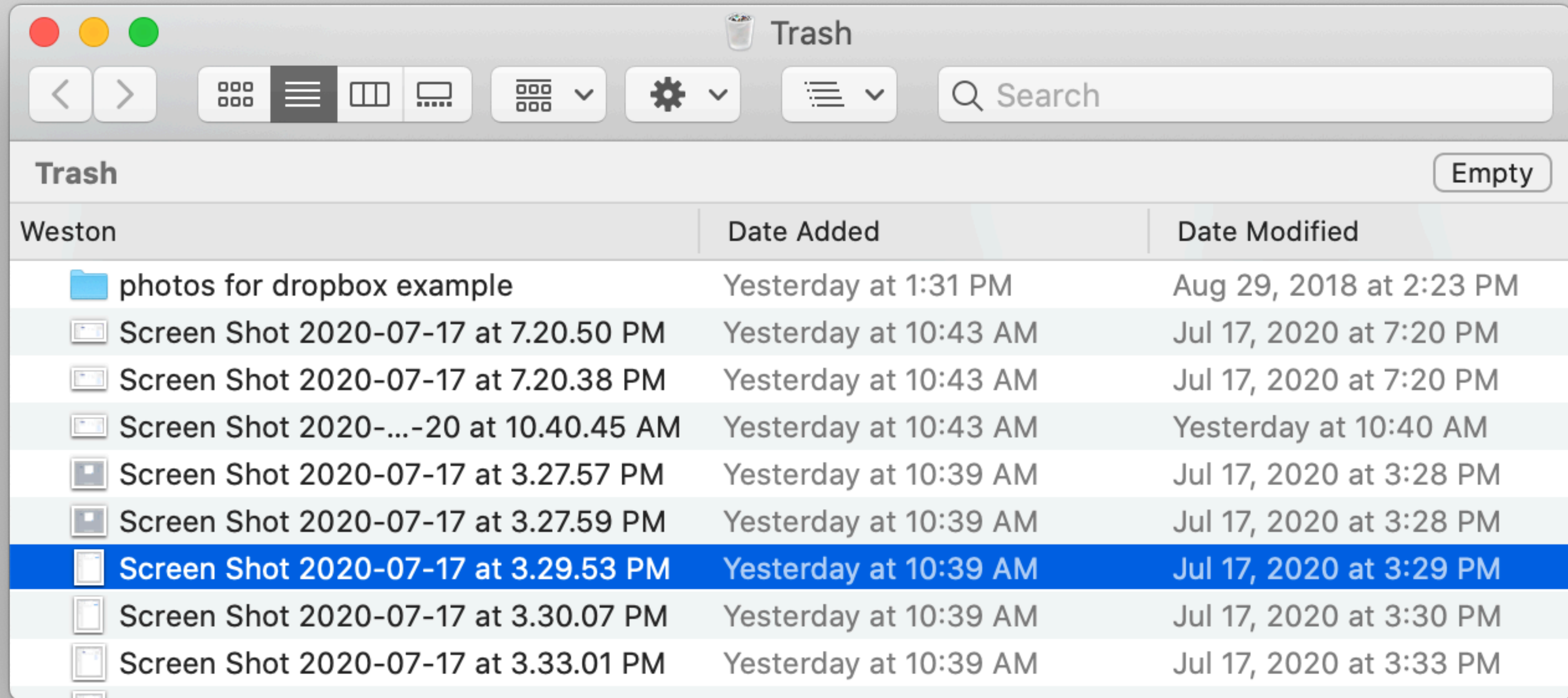
Leave Owner List: [Remove Me](#)

MIT Users

Daniel Jackson (dnj) [remove](#)

[remove](#)

making the trash a folder



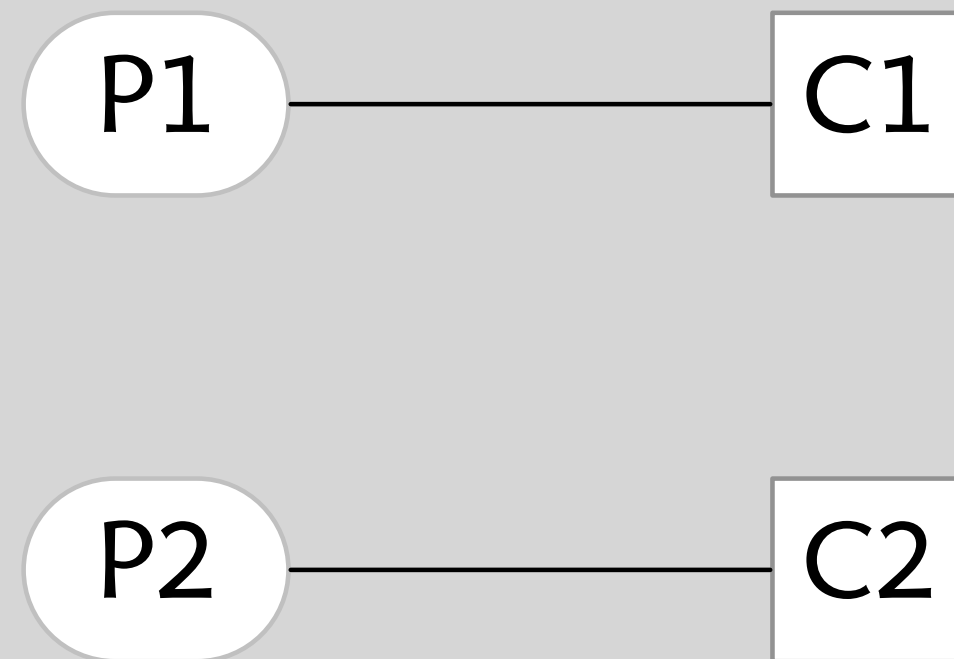
what new problems might this design result in?

hint: macOS has just one trash

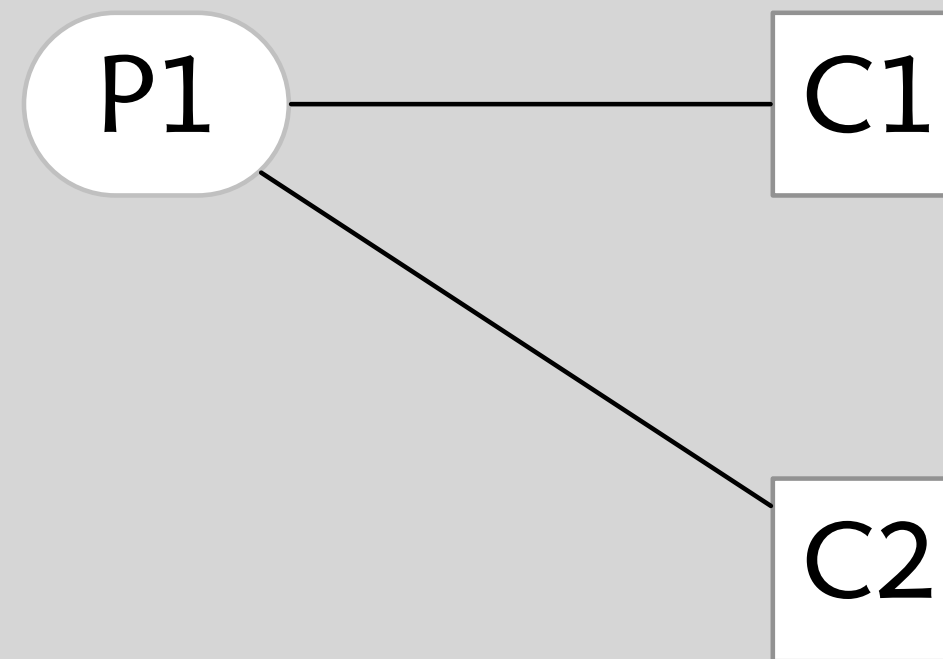
takeaways

unify-specialize: picking concepts that match purposes

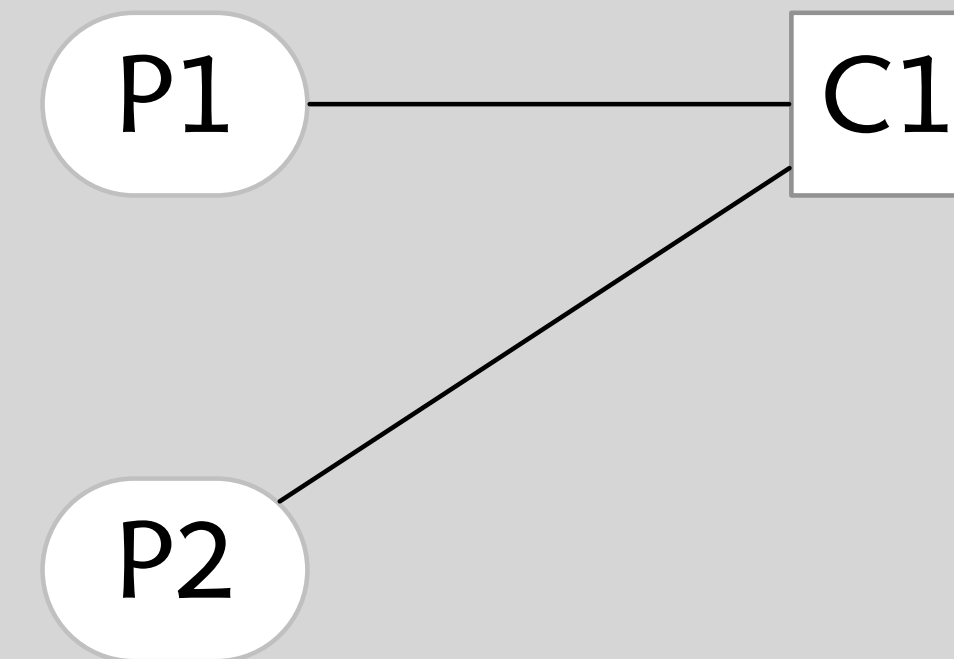
specificity
purposes:concepts are 1:1



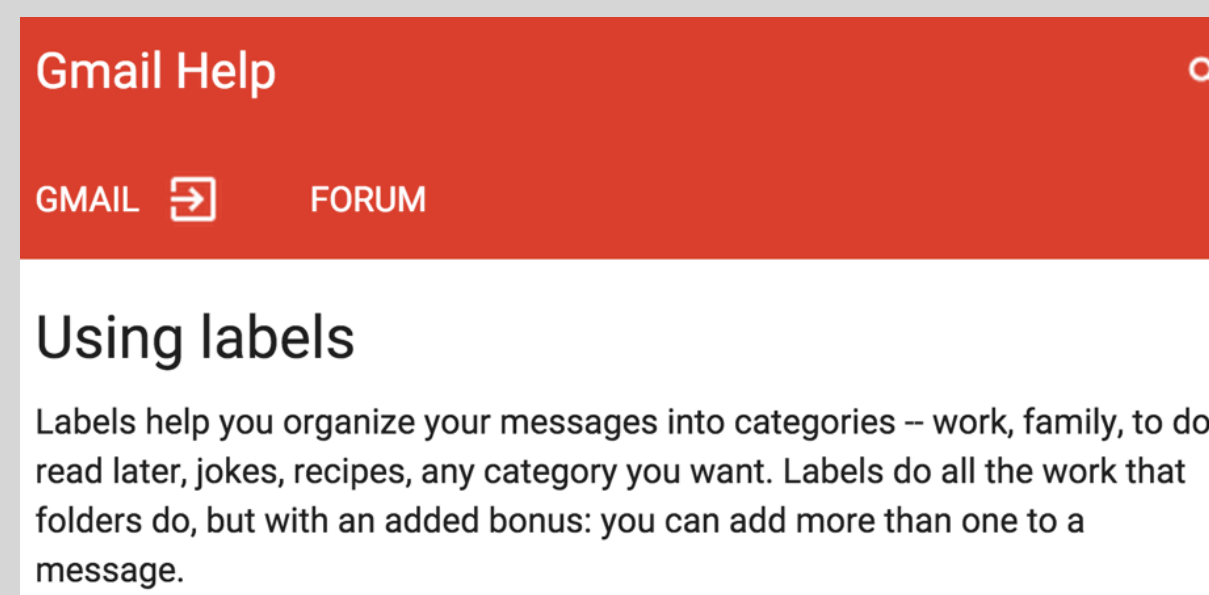
redundancy
>1 concept per purpose



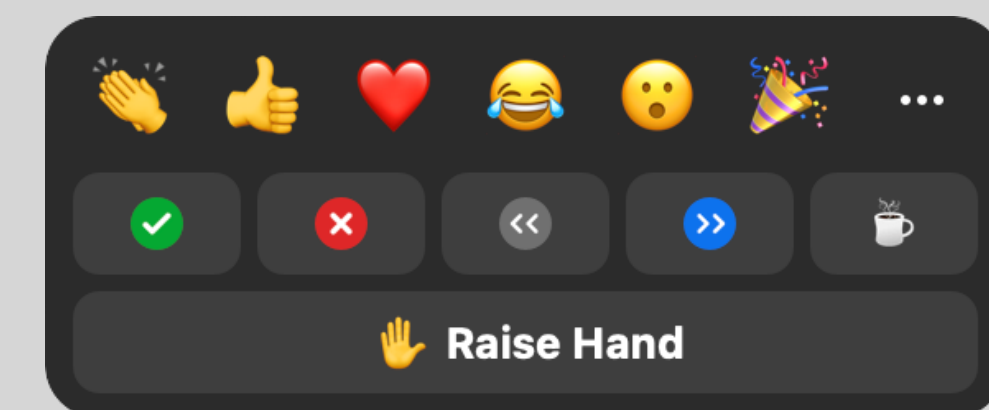
overloading
>1 purpose per concept



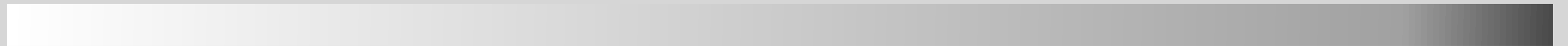
example
Category vs Label in Gmail



example
Reaction in Zoom



loosen-tighten: picking syncs that balance automation/flexibility



too loose
laborious

just right
can create synergy too

too tight
inflexible

what's next?

what's next?

exploring Autodesk concepts

in product-focused triad teams

first casting your product in concept terms

then working on Site, an integration concept