

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

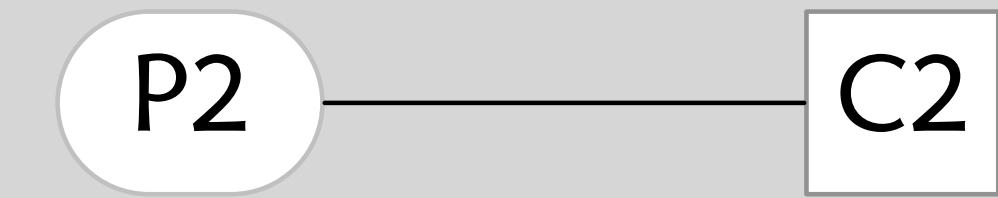
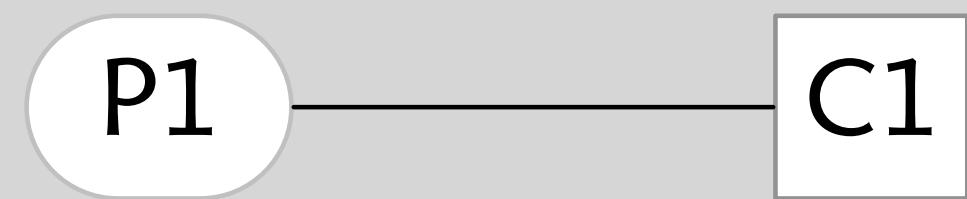
specialize



general-purpose lens

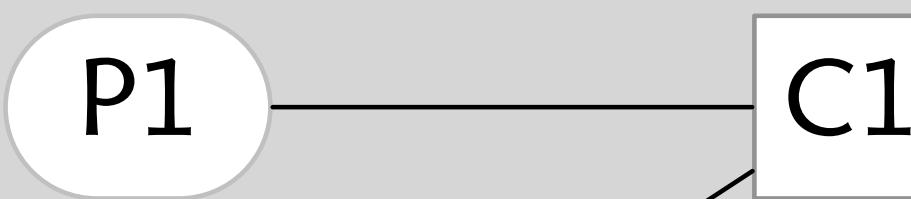
the specificity rule

specificity
purposes:concepts are 1:1



redundancy
>1 concept per purpose

overloading
>1 purpose per concept



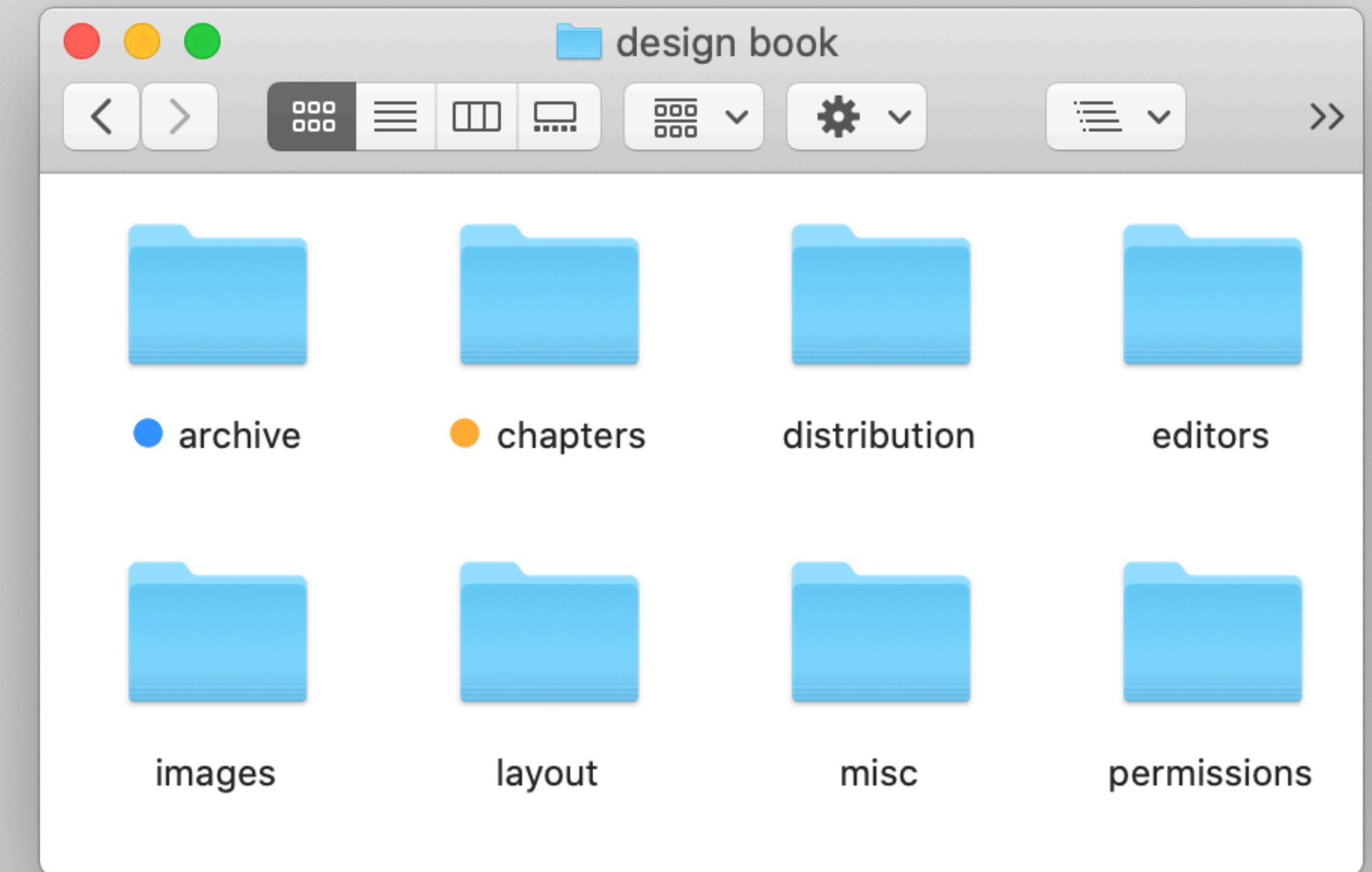
redundancy
in Gmail



concept Label

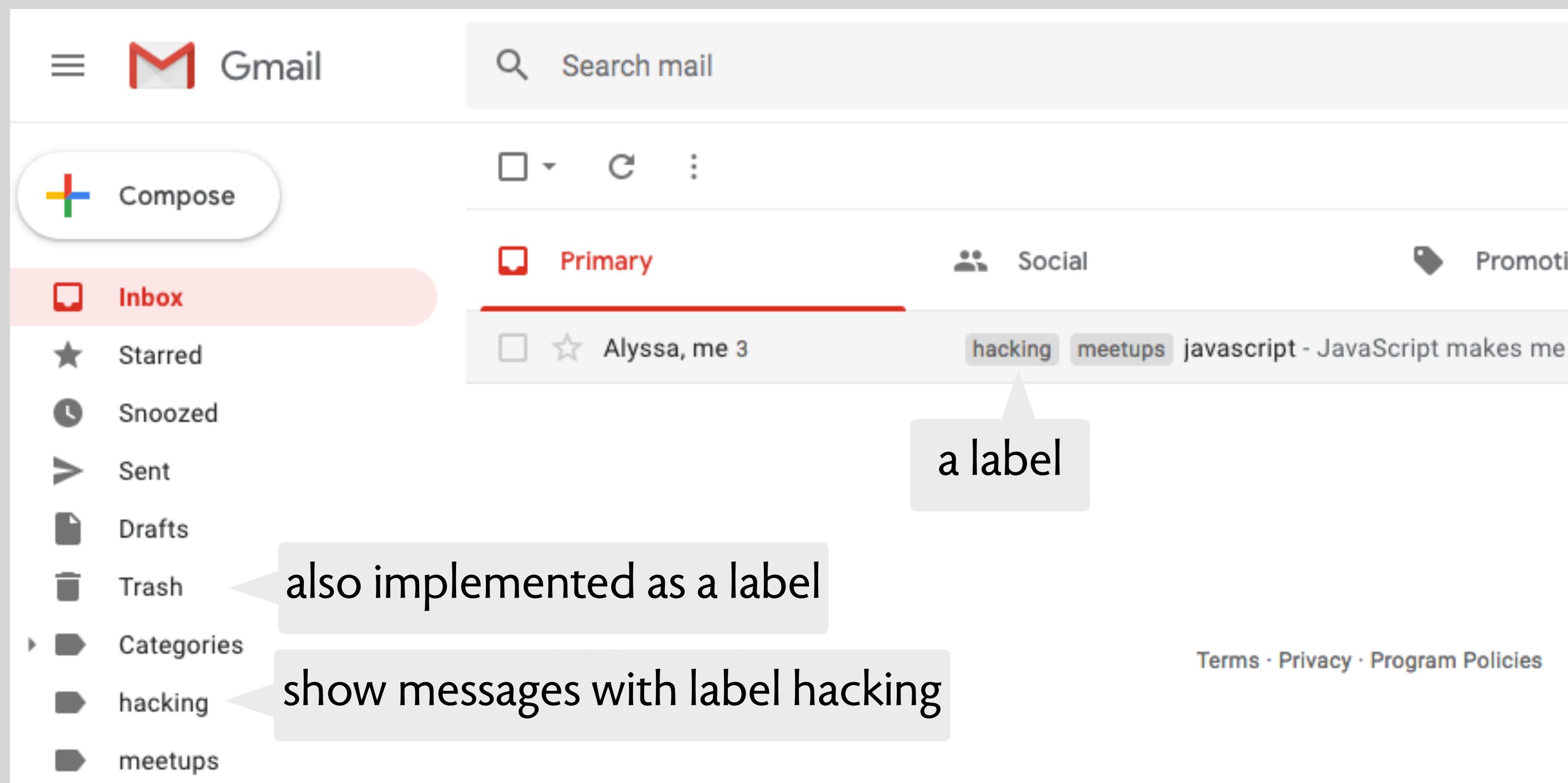
purpose organize items

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"/>  <input type="checkbox"/> Google | New sign-in from Chrome on Mac - New sign-in from Cl |  12:30 pm | |
| <input type="checkbox"/>  <input type="checkbox"/> Keith Muhammad at DeMont. | DeMontrond Auto Group - 14101 North Freeway Houston | | 12:19 pm |
| <input type="checkbox"/>  <input type="checkbox"/> AT&T High Speed Internet. | AT&T High Speed Internet Service Activation - Your A1 | | 10:37 am |
| <input type="checkbox"/>  <input type="checkbox"/> Keith Muhammad at DeMont. | DeMontrond Auto Group - 14101 North Freeway Houston | | Aug 26 |
| <input type="checkbox"/>  <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

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Quick Tech Tip: Disabling Gmail's Category Tabs

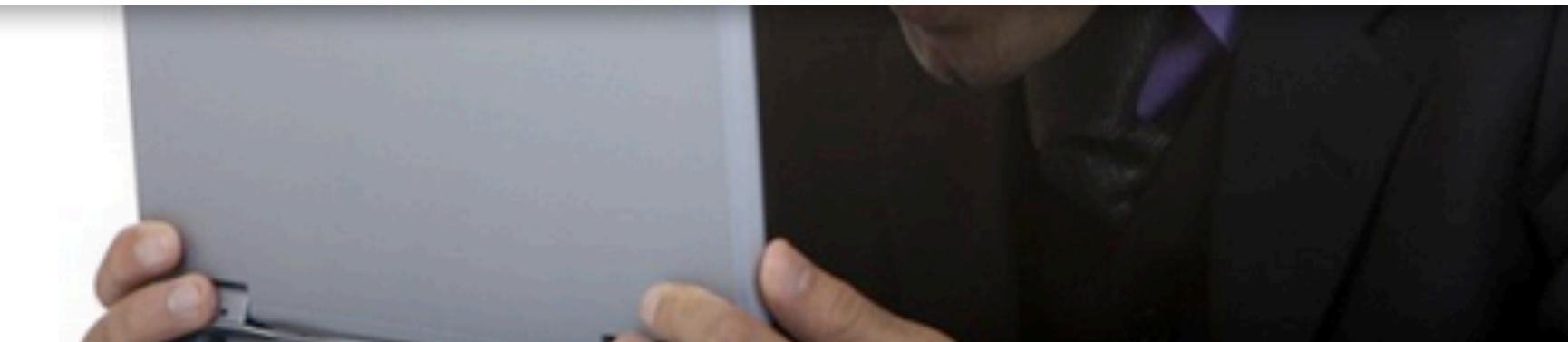
Mon, 07/29/2013 - 12:17 | [Chuck Gray](#)

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

The image shows a screenshot of a web page from 'Gmail Help'. The header is orange with white text. It says 'Gmail Help' on the left and has a magnifying glass icon on the right. Below the header, there are two buttons: 'GMAIL' with a mail icon and 'FORUM'. The main content area is white and features a large, bold title 'Using labels'. Below the title is a paragraph of text explaining what labels are and how they work.

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

| | | |
|---|------|-----|
| 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 |

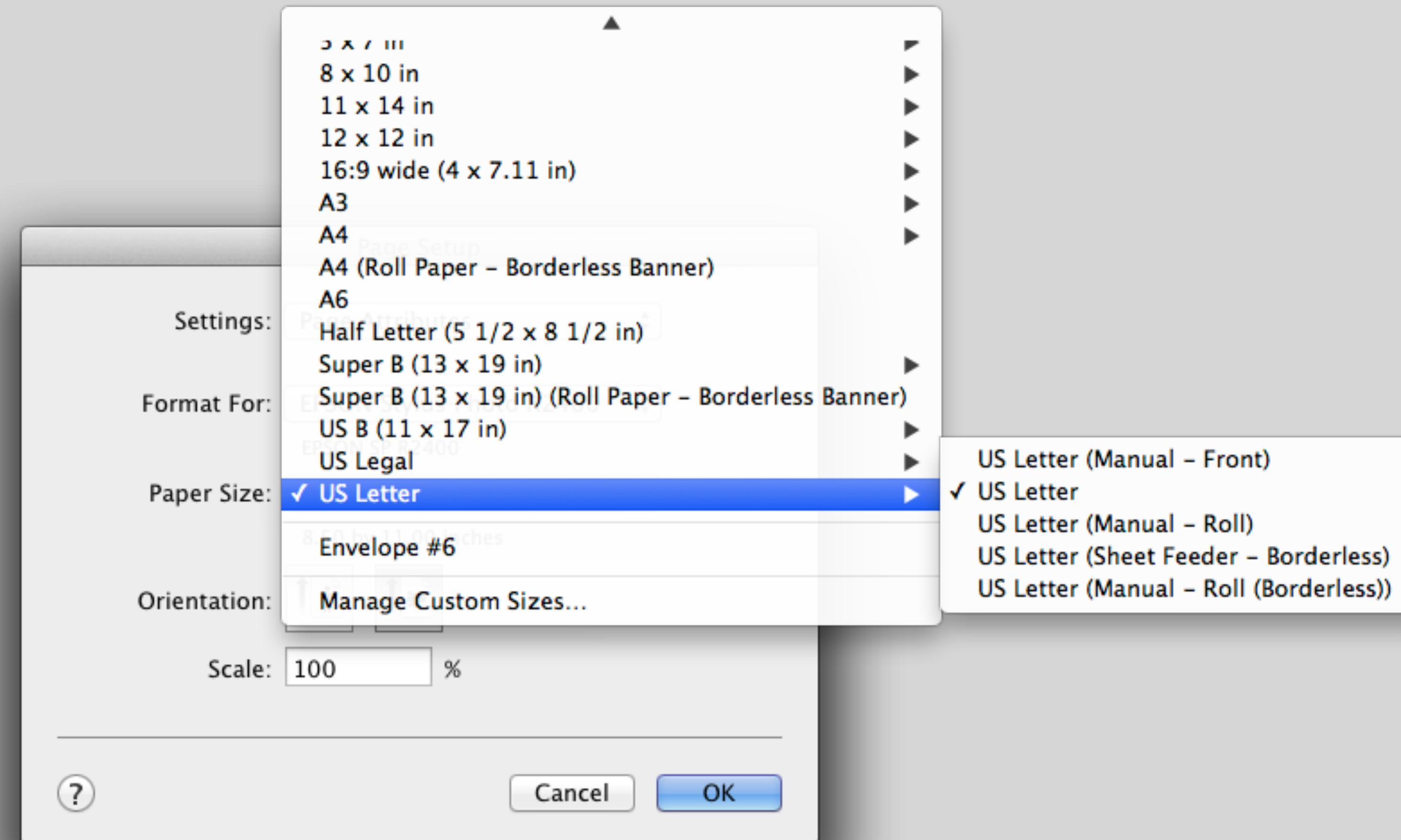
Fuji, give us 4:3, 5:4, and 6:7 aspect ratios on X-series cameras

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

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

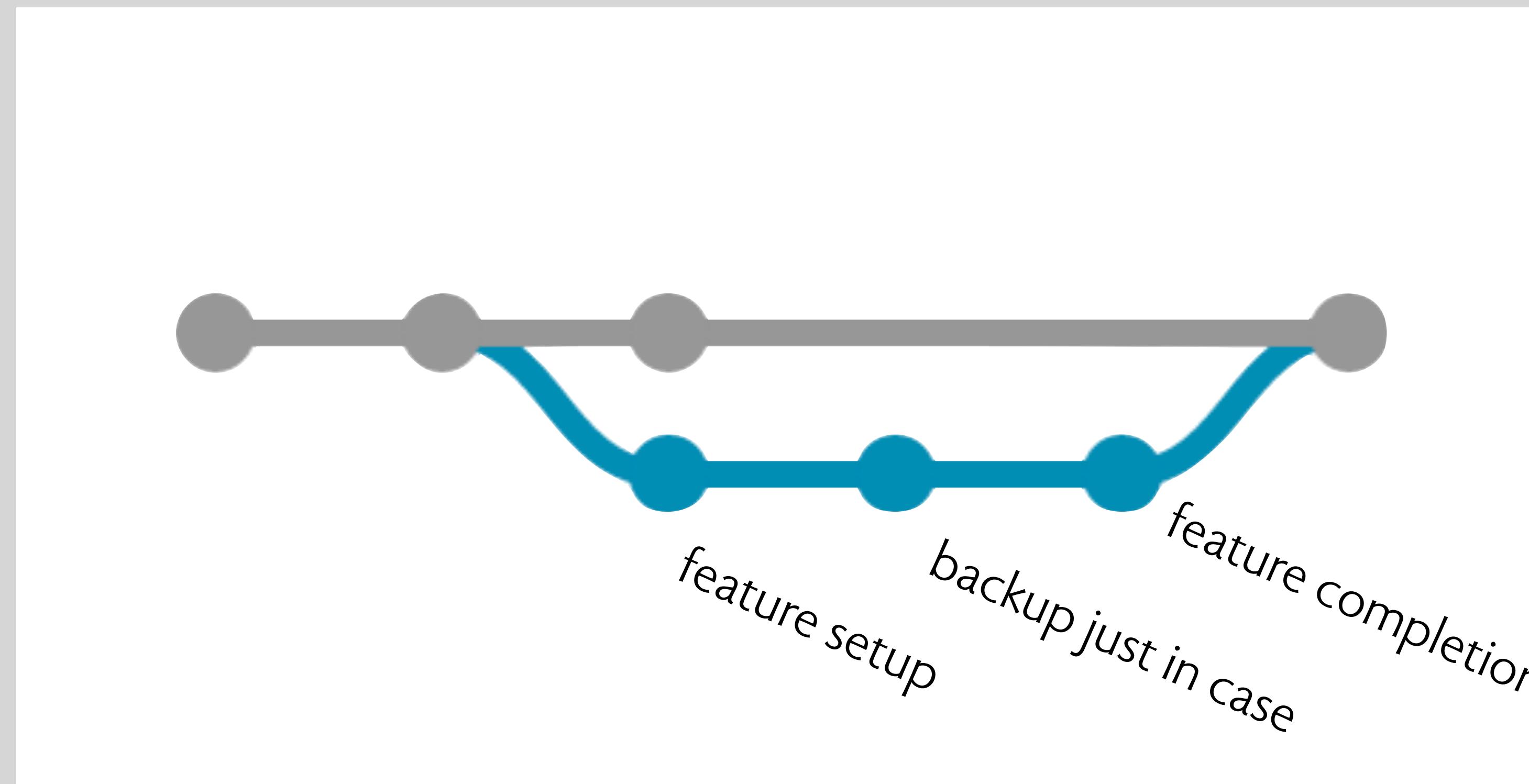
other
overloading
examples

overloading epson driver

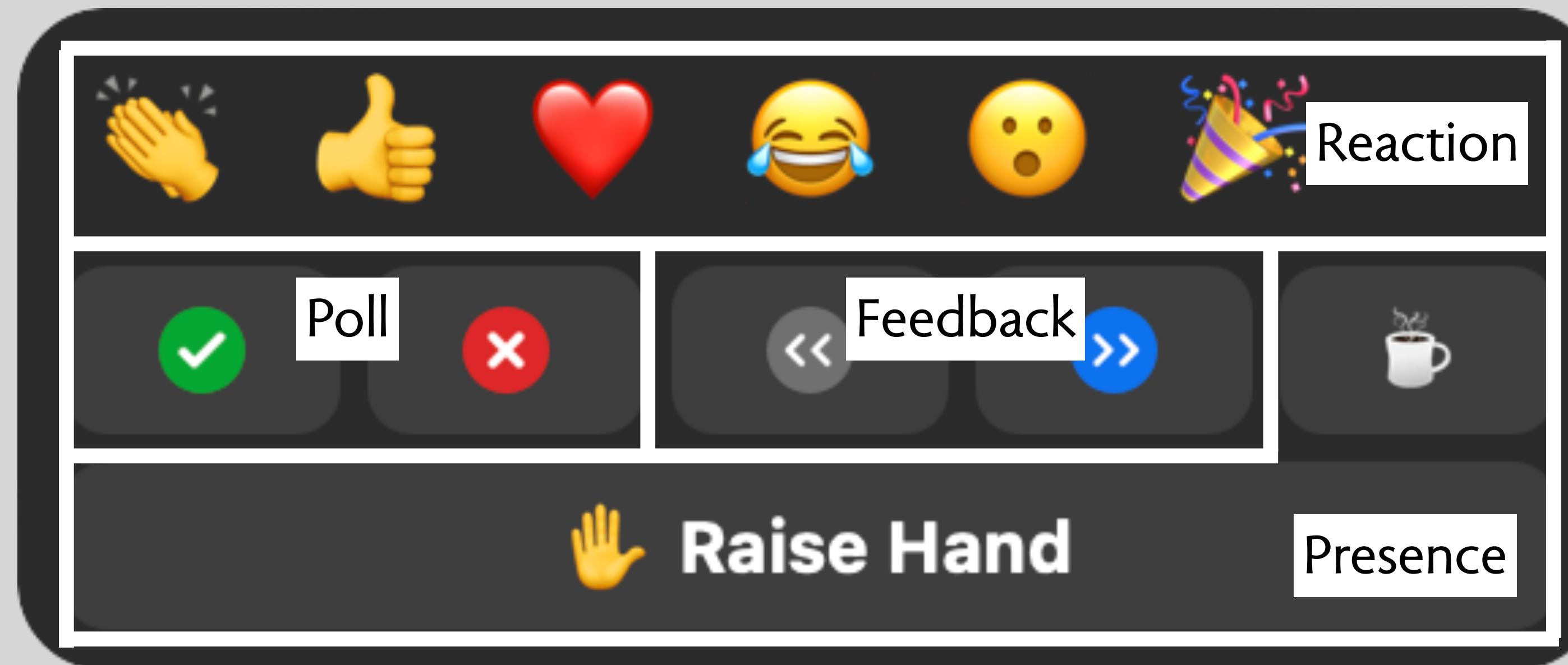


result: can't create custom size for front loading
also, page size presets in Lightroom hold feed setting

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

AS

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.**

2:14 58%

⌚ ⚡ 64%



HCI Seminar

Wednesday, Dec



Daniel's Calendar

Delete

Duplicate

Copy to...

Help & feedback

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

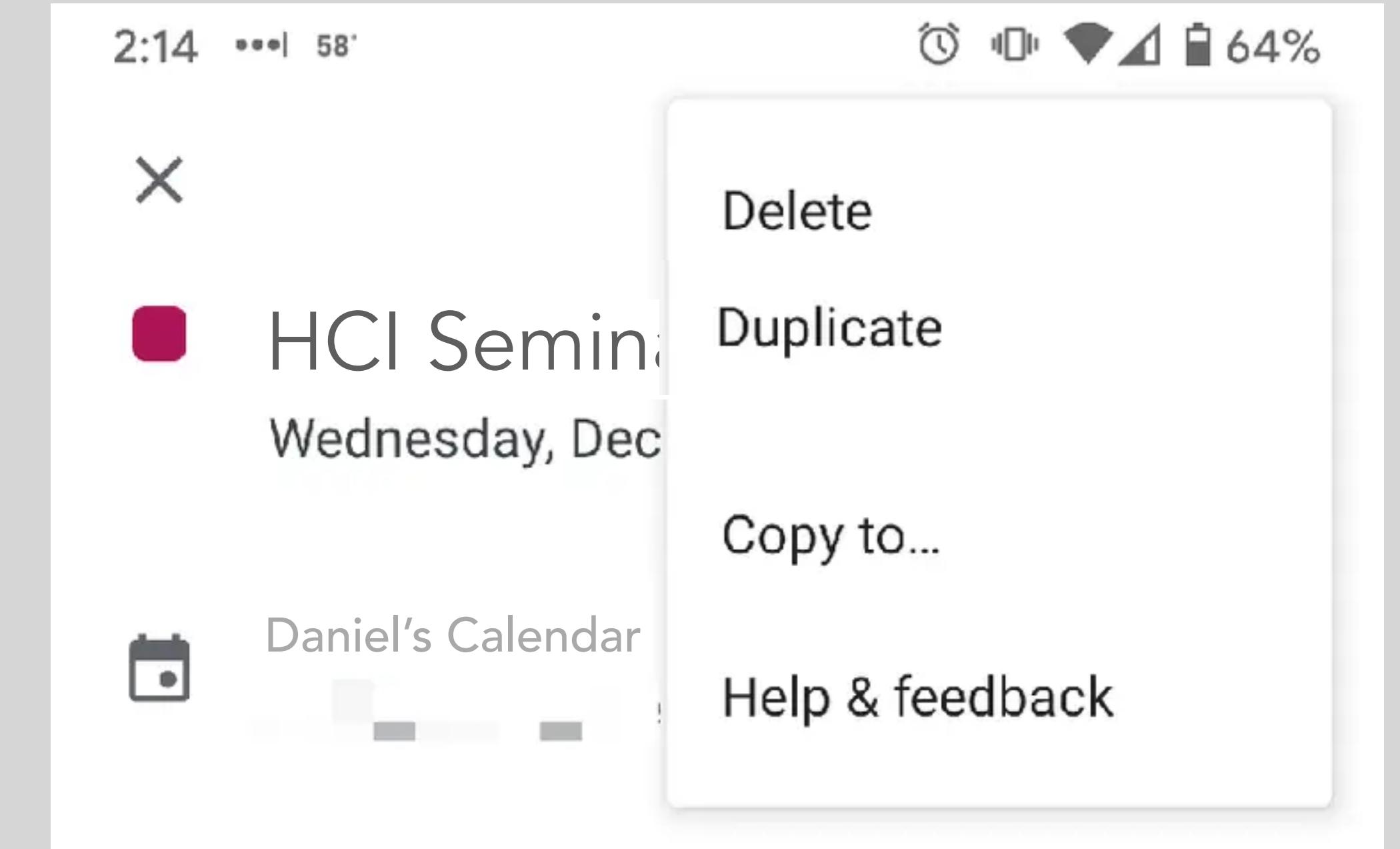
[How to Cancel an Event in Google Calendar - Amelia booking ...](#)

seminar announced as **email** to listserv with attached calendar event

event **installed** automatically in user's calendar

user **deletes** event from calendar

cancellation email automatically sent to other invitees



concept Calendar

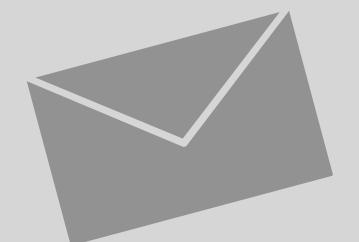
purpose record upcoming engagements

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>

Download Attachments:

Send large attachments...

Account Information | Mailbox Behaviors | Server Settings

Incoming Mail Server (IMAP)

User Name: dnj

Password: ••••••••••••••••••••••••••••••••

Host Name: imap.csail.mit.edu

Automatically manage connection settings

[Advanced IMAP Settings](#)

Outgoing Mail Server (SMTP)

Account:

- None
- consulting
- ✓ csail
- MIT (Offline)

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

Port: 587

Use TLS/SSL

Authentication: MD5 Challenge-Response

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.



increased automation, better security, reduced flexibility

Gmail's email labels

the role of labels in Gmail

The screenshot shows the Gmail web interface. On the left, a sidebar lists navigation options: Compose, Inbox (which is selected and highlighted in red), Starred, Snoozed, Sent, Drafts, Trash, Categories, hacking, and meetups. The main area displays the Primary inbox, which contains one email from Alyssa with the subject "javascript - JavaScript makes me feel nostalgic for S". The email has labels "hacking", "meetups", and "javascript". Below the inbox, it shows "0 GB (0%) of 15 GB used" and links to "Manage" and "Terms · Privacy · Program Policies". On the right, there are tabs for Primary, Social, and Promotions. At the bottom, a search bar contains the filter "label:todo label:trash", and below it, the results for "1–1 of 1" emails, showing one email from "me, Alyssa" with the subject "javascript - JavaScript makes me feel nostalgic for S". The email has labels "hacking", "meetups", "todo", and "javascript". The time is listed as "10:11 am". A large white arrow on the left points to the "Inbox" button with the text "just a label lookup". Another white arrow at the bottom left points to the search bar with the text "use sent, trash in filters". A teal box on the right asks "what other benefits does this design bring?".

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

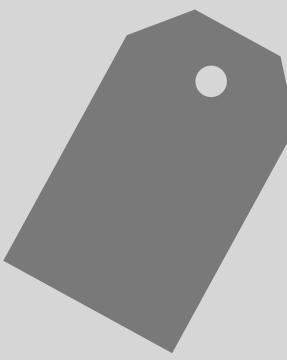
principle if an object is deleted, and the trash is not emptied, it can be restored; if an object is deleted and the trash is emptied, the object is gone but its space is regained

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](#)

what if we want
>1 owner?

Administrator

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](#)

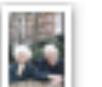
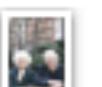
Leave Owner List: [Remove Me](#)

MIT Users

Daniel Jackson (dnj) [remove](#)

macOS's
trash

macOS trash is a folder

| Trash | | |
|--|-------------------------|---------------------|
| Chiara | Date Modified | Kind |
|  _DAN7596.RAF | Mar 20, 2024 at 6:13 AM | Fujifilm...Raw file |
|  _DAN7597.RAF | Mar 20, 2024 at 6:13 AM | Fujifilm...Raw file |
|  _DAN7598.RAF | Mar 20, 2024 at 6:13 AM | Fujifilm...Raw file |
|  _DAN7599.RAF | Mar 20, 2024 at 6:13 AM | Fujifilm...Raw file |
|  _DAN7601.RAF | Mar 20, 2024 at 6:13 AM | Fujifilm...Raw file |
|  _DAN7603.RAF | Mar 20, 2024 at 6:13 AM | Fujifilm...Raw file |
|  _DAN7604.RAF | Mar 20, 2024 at 6:13 AM | Fujifilm...Raw file |
|  _DAN7605.RAF | Mar 20, 2024 at 6:13 AM | Fujifilm...Raw file |
|  _DAN7606.RAF | Mar 20, 2024 at 6:13 AM | Fujifilm...Raw file |

synchronizes
Folder and Trash
concepts

what benefits
does this bring?

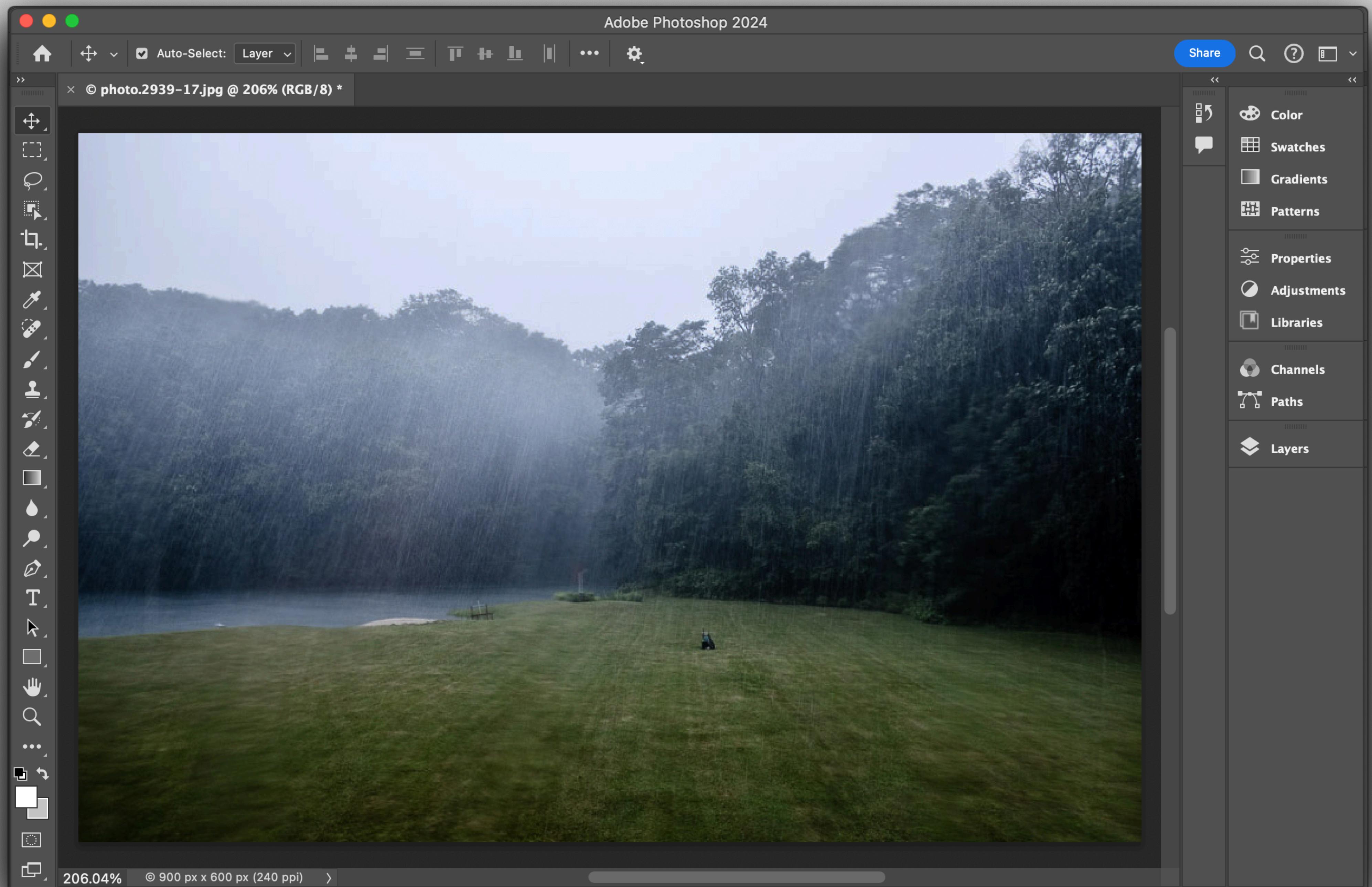
how to sort by deletion date?

A screenshot of the OS X Finder showing the contents of the Trash. The window title is "Trash". The toolbar at the top includes icons for back, forward, trash, and search. A tooltip box with a cyan background and black text says "actually new in Lion (2011)" with an arrow pointing to the "Date Added" column header. The main area shows a list of deleted files:

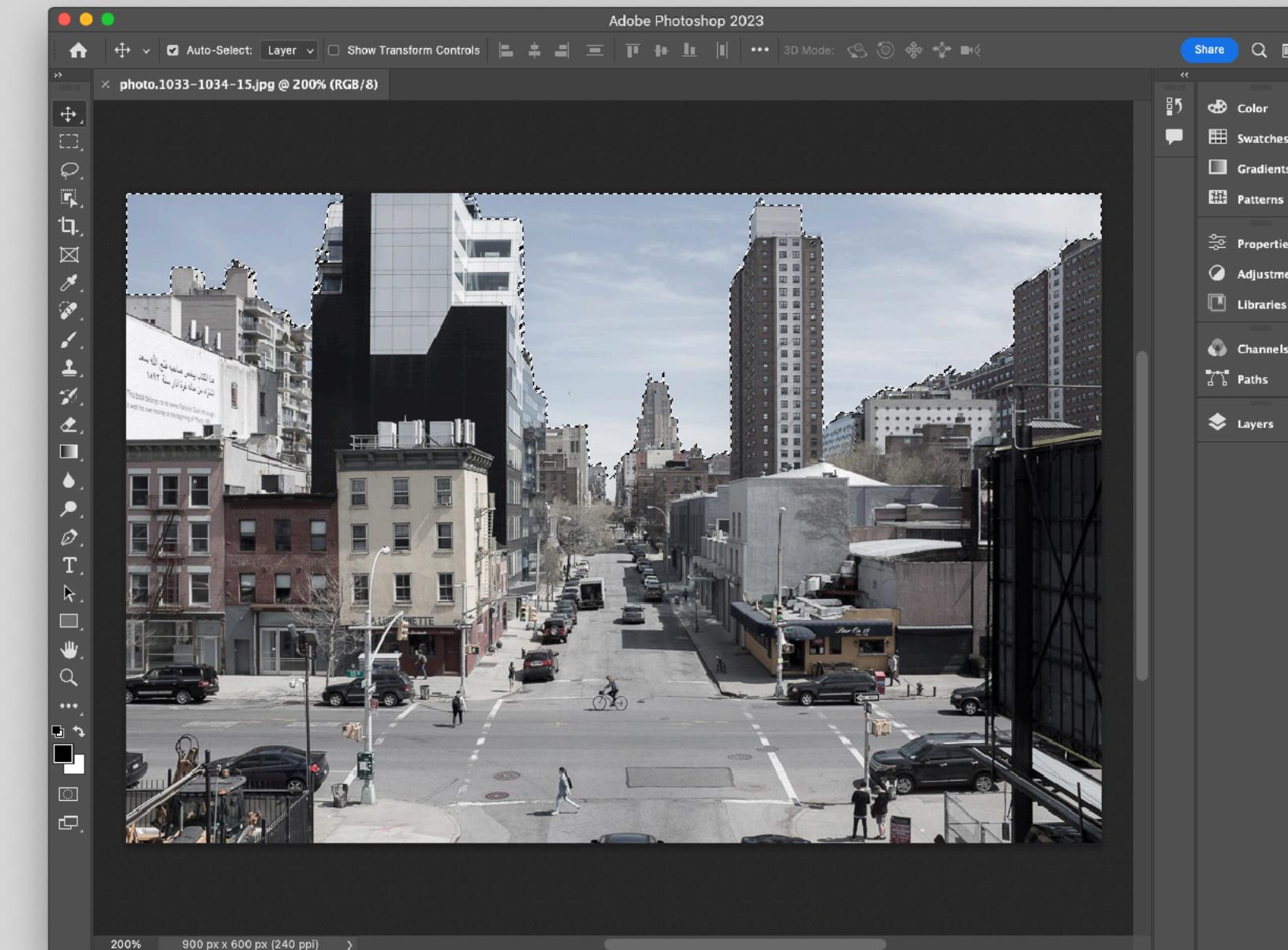
| | Date Added | Size | Kind |
|--------------------------------------|------------------|----------|-------------------|
| x-syncs | Today at 8:10 PM | 13.5 MB | Keynote |
| Chap4.pdf | Today at 7:58 PM | 78 KB | PDF Document |
| calendar 7.57.38 PM.ics | Today at 7:57 PM | 1 KB | ICS file |
| hugo_0.145.0_darwin-universal.tar | Today at 7:57 PM | 101.8 MB | tar archive |
| hugo_0.145.0_darwin-universal | Today at 7:57 PM | -- | Folder |
| hugo_0.145.0_darwin-universal.tar.gz | Today at 7:51PM | 34.5 MB | gzip co...archive |

Photoshop's selections

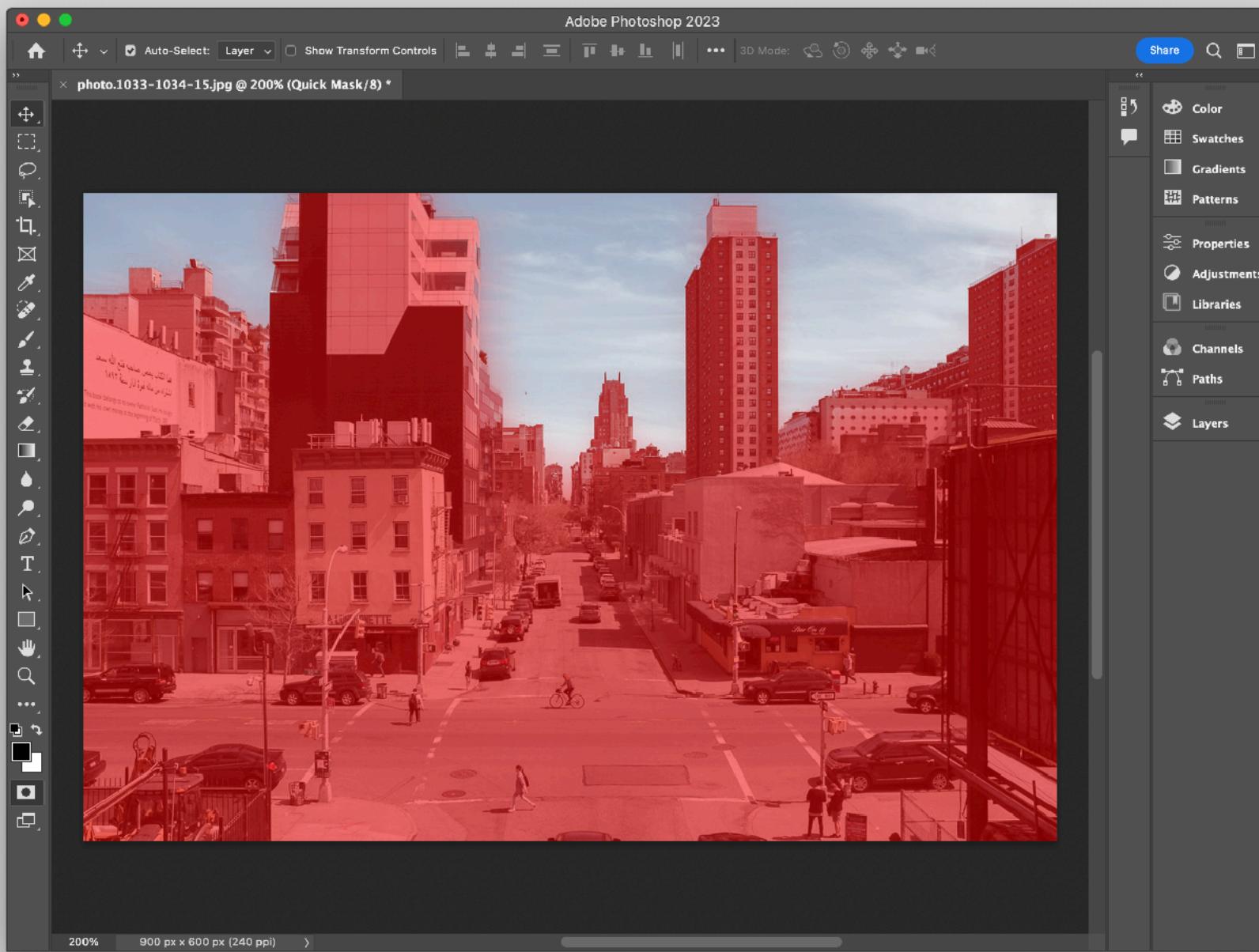
how to darken the sky



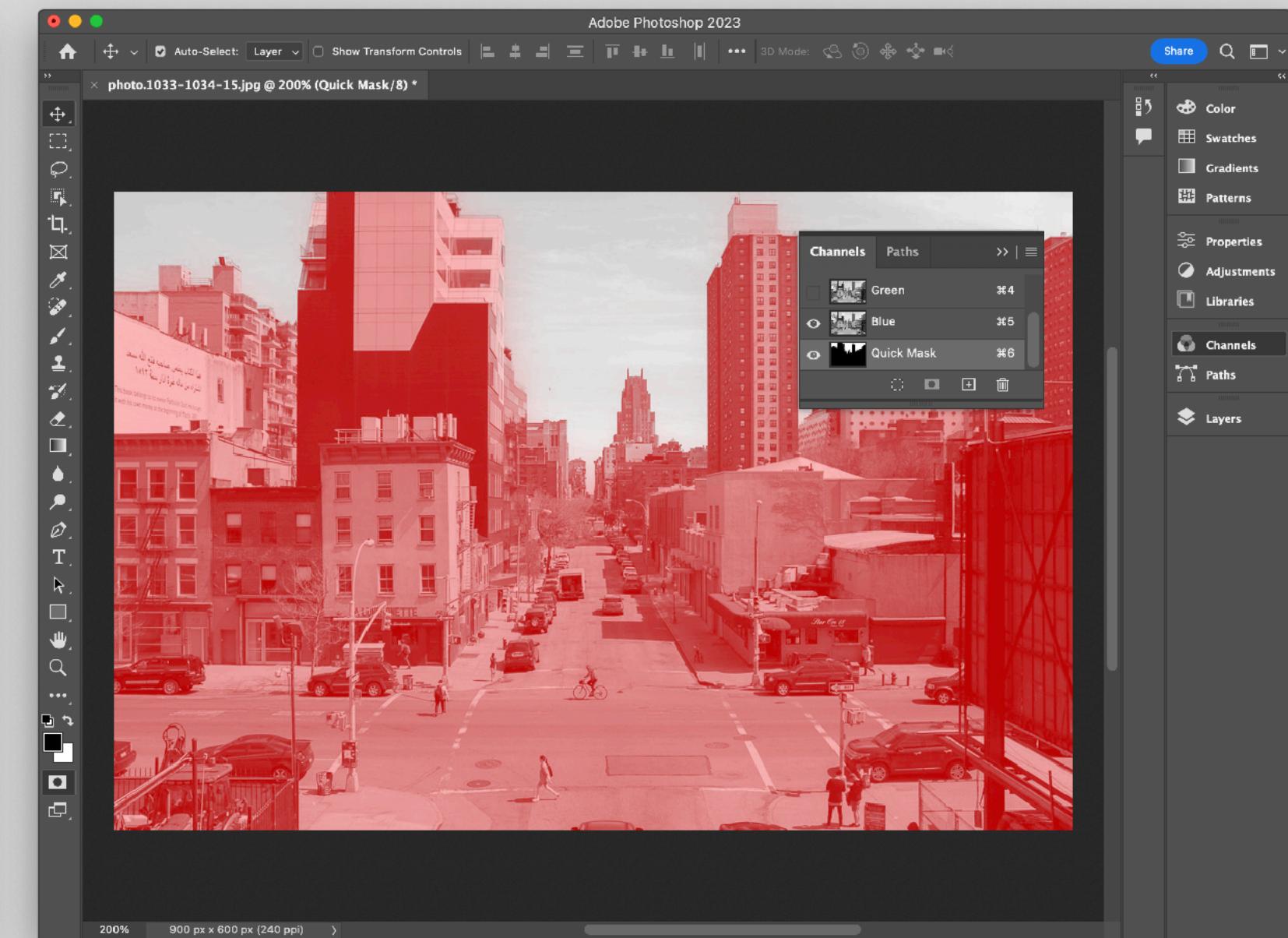
the mother of all synergies



selection (shown as “marching ants”)



edit selection as **mask**

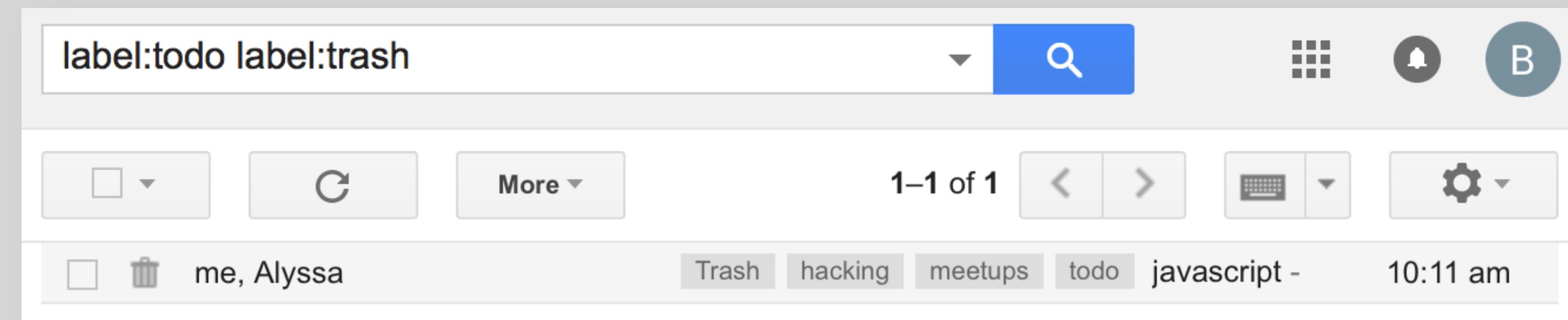
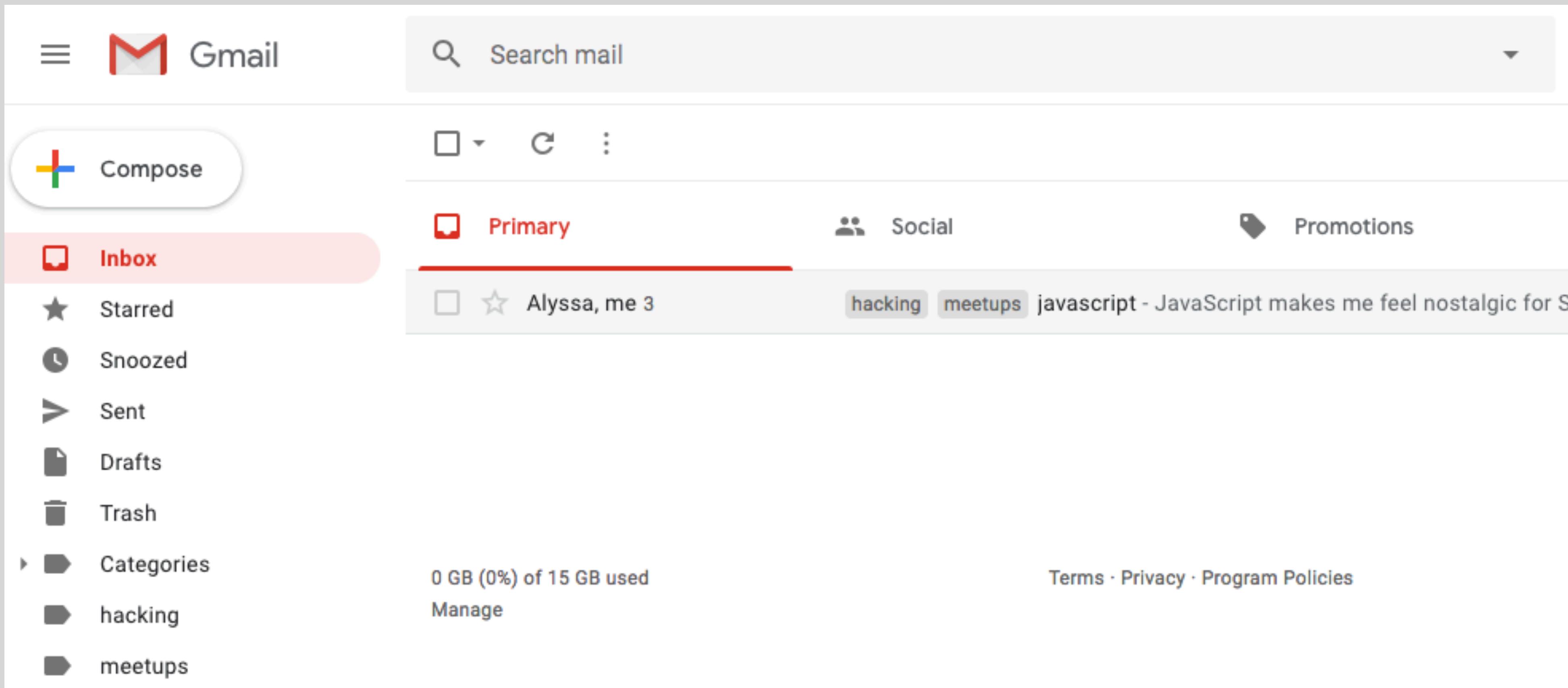


toggle mask as **channel**

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...

The screenshot shows four vertically stacked search results panels from Google Mail, each with a different filter applied:

- Top panel:** Shows 1-2 of 2 messages. A callout bubble on the left says "click on trash". The search bar contains "label:todo label:trash".
 - Message 1: me, Alyssa (13) - hacking, meetups, todo, javascript - Hello a... (11:48 am)
 - Message 2: Andy from Google - Updates, Ben, welcome to your new Googl... (9:01 am)
- Second panel down:** Shows 1-1 of 1 message. A callout bubble on the left says "filter on todo and trash". The search bar contains "label:todo OR label:meetup".
 - Message: me, Alyssa - Trash, hacking, meetups, todo, javascript - (10:11 am)
- Third panel down:** Shows 0 messages. A callout bubble on the left says "filter on something else". The search bar contains "label:todo".

Some messages in Trash or Spam match your search. [View messages.](#)
- Bottom panel:** Shows 0 messages. A callout bubble on the left says "filter on todo label". The search bar contains "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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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](#)

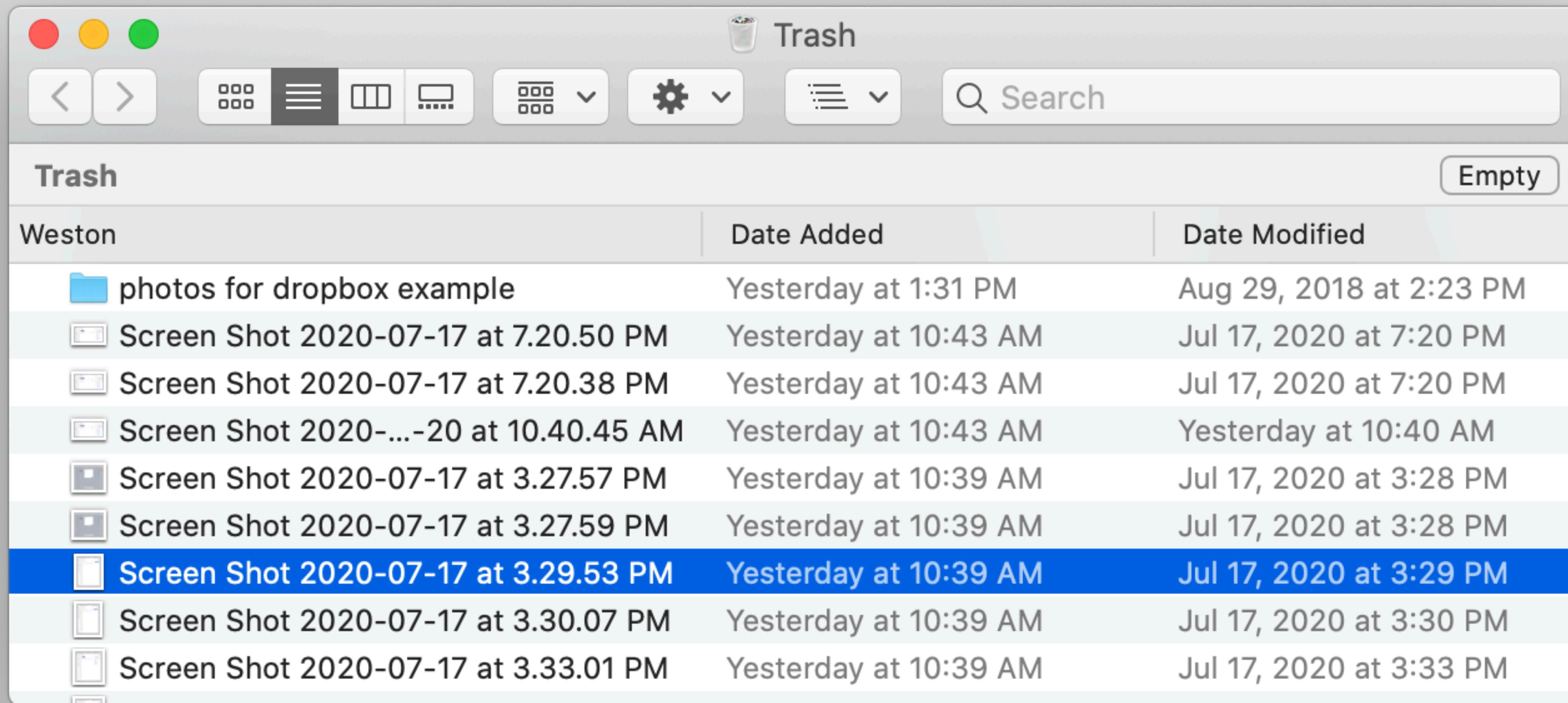
Add Administrator: [Add](#)

Leave Owner List: [Remove Me](#)

MIT Users

Daniel Jackson (dnj) [remove](#)

making the trash a folder



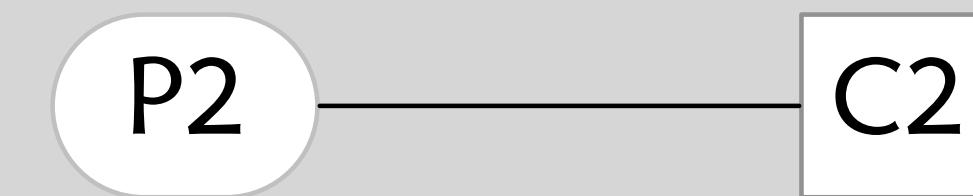
what new problems
might this design
result in?

hint: macOS
has just one trash

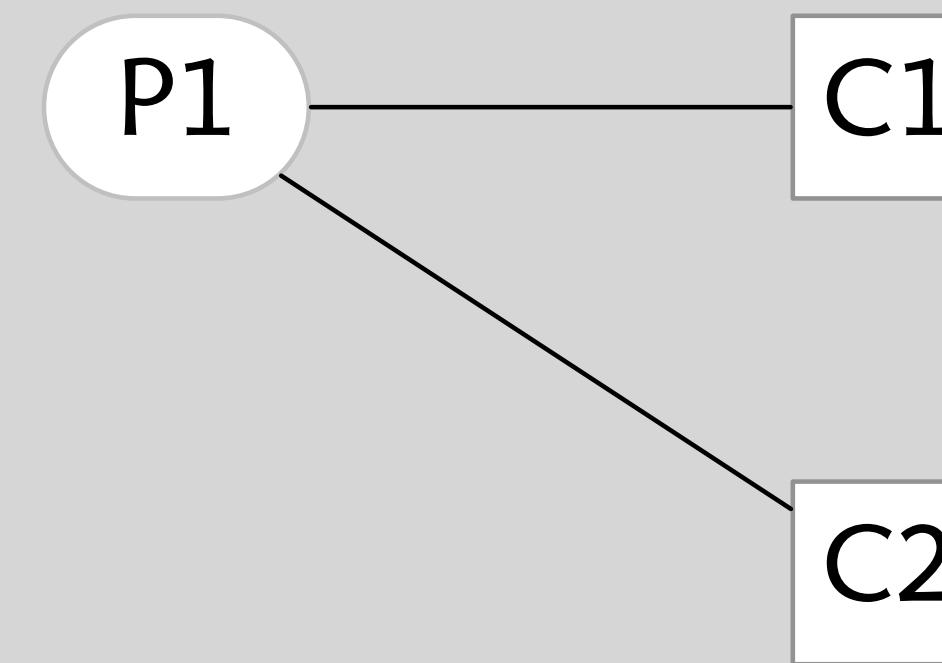
takeaways

unify-specialize: picking concepts that match purposes

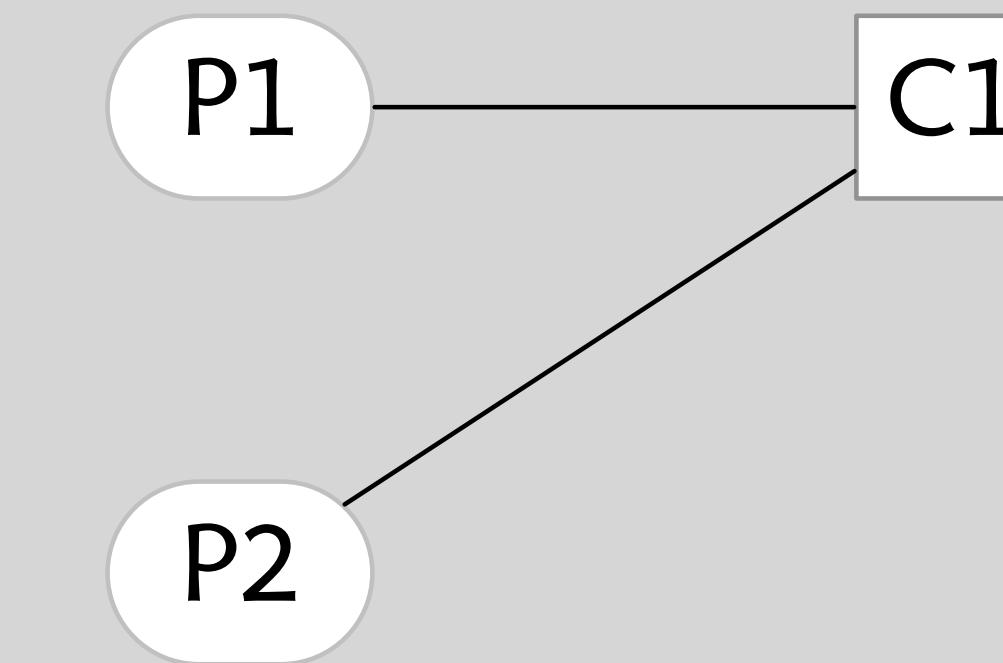
specificity
purposes:concepts are 1:1



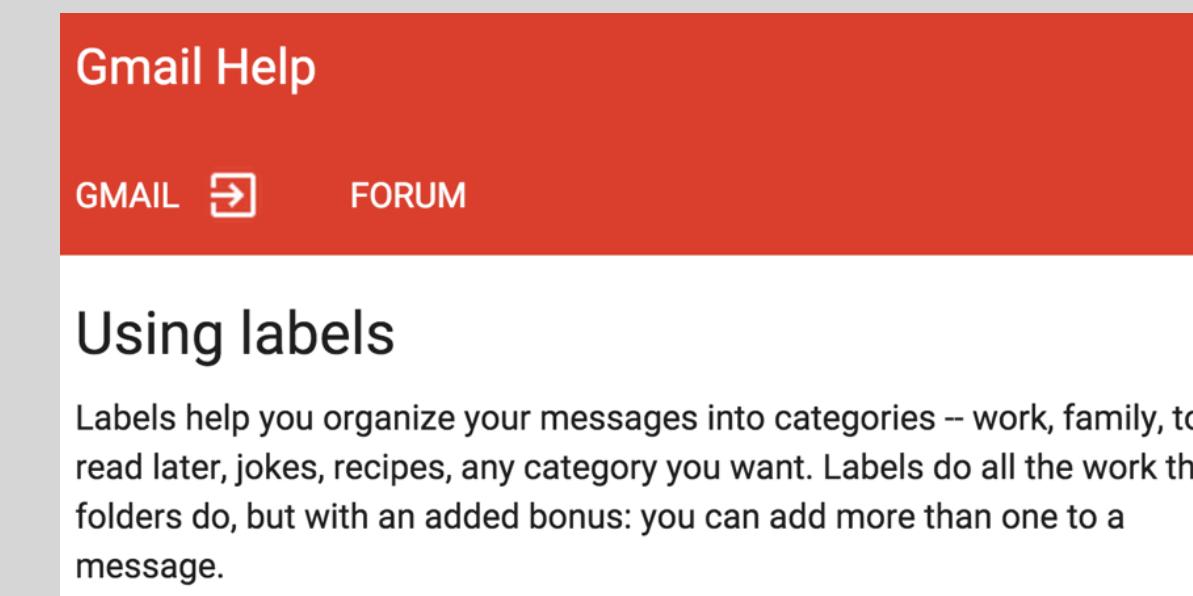
redundancy
>1 concept per purpose



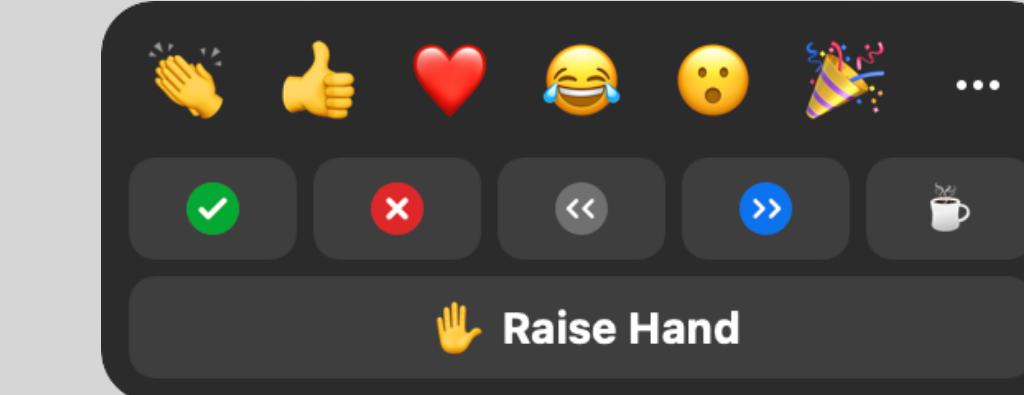
overloading
>1 purpose per concept



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