



Myriad Email

A Mailmerge Tool for Massive Parallel,
yet Individual Email Conversations

Ludwig Schubert

Advisors, TUM:

Dr. Wolfgang Wörndl

Prof. Dr. Johann Schlichter

Advisors, Stanford:

Prof. Scott Klemmer

Prof. Michael Bernstein

Nicholas Kokkalis, PhD

Students:

Christian Ikas, TUM

Baris Oztop, TUM

(Maciej Jozwiak, TUM & Abrune Auissep, Stanford)

Motivation

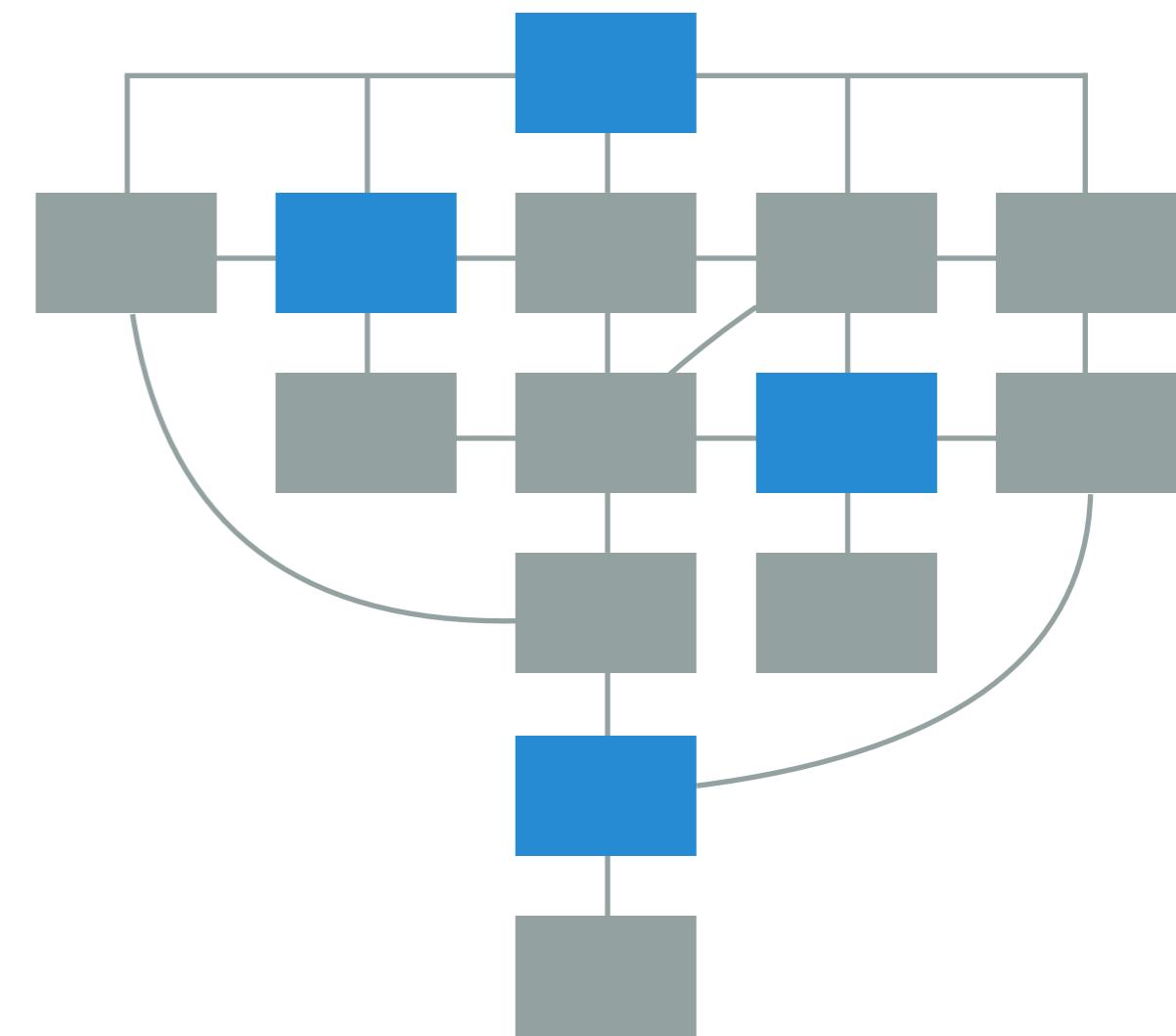
Approach & Framework

Myriad

Learnings from Implementation

Q&A

Motivation





```
3. mail (mail)
Last login: Tue Nov  5 09:48:36 on ttys000
You have mail.
09:50:44 ~
$ mail
Mail version 8.1 6/6/93. Type ? for help.
"/var/mail/ludwig": 1 message 1 new
>N 1 ludwig@squirrel.loca  Tue Nov  5 09:50  14/556  "Re: Welcome to the wo"
? n 1
Message 1:
From ludwig@squirrel.local  Tue Nov  5 09:50:42 2013
X-Original-To: ludwig@squirrel.local
Delivered-To: ludwig@squirrel.local
To: ludwig@squirrel.local
Subject: Re: Welcome to the world of terminal email
In-Reply-To: <20131105084822.9E2E01BA713@squirrel.local>
Date: Tue,  5 Nov 2013 09:50:42 +0100 (CET)
From: ludwig@squirrel.local (Ludwig Schubert)

? r 1
To: ludwig@squirrel.local ludwig@squirrel.local
Subject: Re: Welcome to the world of terminal email

-
```



label:[gmail]-archive



+Ludwig



Share

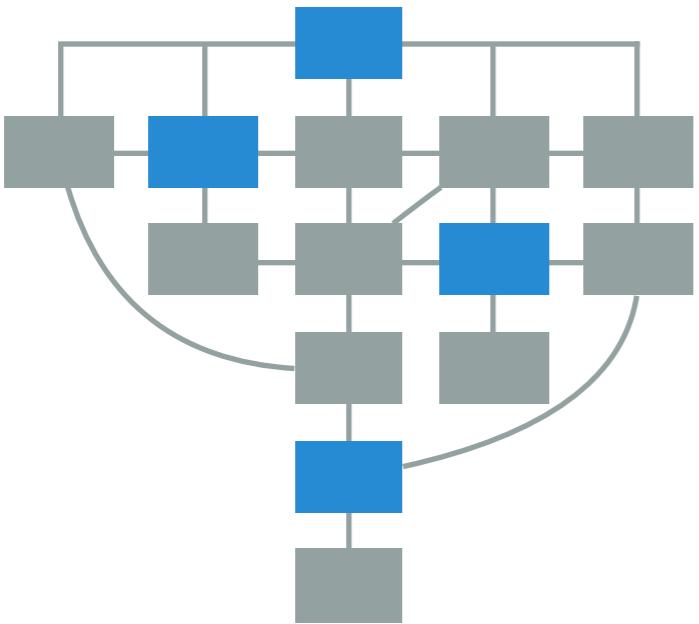


Keyboard shortcuts

Compose and Chat			
	<Shift> + <Esc>	: Focus main window	
COMPOSE	<Esc>	: Focus latest chat or compose	
	<%> + .	: Advance to next chat or compose	
Inbox	<%> + ,	: Advance to previous chat or compose	
Important		pagano	
Sent Mail	<%> + <Enter>	: Send	
Drafts	<%> + <Shift> + c	: Add cc recipients	Ludwig Schubert
Spam	<%> + <Shift> + b	: Add bcc recipients	Google Mail Team
Circles	<%> + <Shift> + f	: Access custom from	
[Gmail]/Archive	<%> + k	: Insert a link	Stephan, Dennis (2)
[Gmail]/Sent Messages		me, Stefanie (11)	
[Gmail]/Unsolicited (...		Elke Schubert	
Apple Mail To Do			
Boomerang	The following keyboard shortcuts are currently enabled. Disable		
catchall@ludwigschubert.de		me, Heinz-Joachim (2)	
l.schubert@weptu.de	Jumping	me, Anton (2)	
	g then i	: Go to Inbox	
	g then s	: Go to Starred conversations	equinux licensing team
	g then t	: Go to Sent messages	
	g then d	: Go to Drafts	equinux sales department
Oops! You are not			
invisible because	g then a	: Go to All mail	Friedemann Schubert
you're logged in to	g then c	: Go to Contacts	Antonia Schmalstieg
Google Tag	g then k	: Go to Tasks	
another click	g then l	: Go to Label	Stefanie Boltz
or location that doesn't			
support invisibility.	Threadlist selection	me, Antonia (2)	
	* then a	: Select all conversations	
Search people	* then n	: Deselect all conversations	me (4)
	* then r	: Select read conversations	Stephan Krusche
	* then u	: Select unread conversations	
	* then s	: Select starred conversations	(2)
Lukas Murmann	* then t	: Select unstarred conversations	Elke Schubert
Sinan Taifour			
Christian Ikas	Navigation	Ernst, me (4)	
Felix Klühr			

[Open in a new window](#) | [Close](#)

1–100 of 1,888	<	>	More
Formatting			
» Neue Private Nachricht erhalten - Hallo Ludwig Schubert, du hast auf „F	<%> + b	: Bold	7/17/10
	<%> + i	: Italics	
» Benutzerkonto aktiviert - Hallo Ludwig Schubert, du hast auf „F	<%> + u	: Underline	7/15/10
» Willkommen auf „FA2010“ - Willkommen auf FA2010. Bitte bewahre dies	<%> + <Shift> + 7	: Numbered list	7/14/10
	<%> + <Shift> + 8	: Bulleted list	
» Prisoner's Dilemma - Hallo Spieler, es ist ein kleines	<%> + <Shift> + 9	: Quote	6/25/10
» Test intim - [sent from my mobile phone]	<%> + [: Indent less	6/20/10
	<%> +]	: Indent more	
» Google Mail Confirmation - Send Mail as ludwig.schubert@in.tum.de - Y			6/20/10
» Modellierungs Treffen - Hallo alle, leider konnte ich noch nichts definitive	<%> + <Shift> + 1	: Align left	6/20/10
» Re: Der Patient, Lösung - <%> + <Shift> + e	: Align center		6/20/10
» Fwd: Adresse - ERINNERUNG Anhang der weitergeleiteten E-Mail: Von:	<%> + <Shift> + r	: Align right	6/20/10
» equinux License Manager: CoverScout 3.x, ID ludwigschubert - Hello Lu			6/20/10
» Danke für eure Päckchen! - Ursprüngliche Nachricht von: Ludwig Schubert			6/19/10
Actions			
» Schlosspark Tempeldinger - Danke für den tag! Original-Nachricht > Dat	,	: Move focus to toolbar	6/19/10
» equinux License Manager: CoverScout 3.x for equinux TubeStick, ID ludwi	x	: Select conversation	6/18/10
» Ihre Login Informationen - Hallo Ludwig Schubert, jemand (hoffentlich Si	s	: Rotate superstar	6/18/10
» Fwd: :o - Anhang der weitergeleiteten E-Mail: Von: Astrid Dörfler <astrid	y	: Remove label	6/18/10
	a	: Archive	6/18/10
	m	: Ignore conversation	
	"mehr vorträgen gehen 2010" oder "Suche Interessierte und seelischen E	!	6/17/10
		: Report as spam	
	#	: Delete	
	r	: Reply	
	<%> + r	: Reply in a new window	6/17/10
» <%> + a	: Reply all		6/16/10
» weMakeWords - Umfrage - Hallo allerseits, ich habe eine Umfrage er	<%> + a	: Reply all in a new window	6/16/10
	f	: Forward	
	<%> + f	: Forward in a new window	6/16/10
» 1006161708502 - Version des Checkers für EIST Sheet06 - nutze norma	<%> + n	: Update conversation	6/16/10
	j	: Remove conversation from current view and go previous/next	6/15/10
» Bestellung - Sehr geehrter Herr Schubert, ich habe die Reservierung au	j / {	: Archive conversation and go previous/next	6/15/10
Nur bis zum 18. Juni: Rabatt-Angebot für Beta-User von Adobe Photosh			6/15/10
RWU fuer Nicht-RWUler / Neue Stipendiumsaufstellungen - Newsletter wird			6/14/10

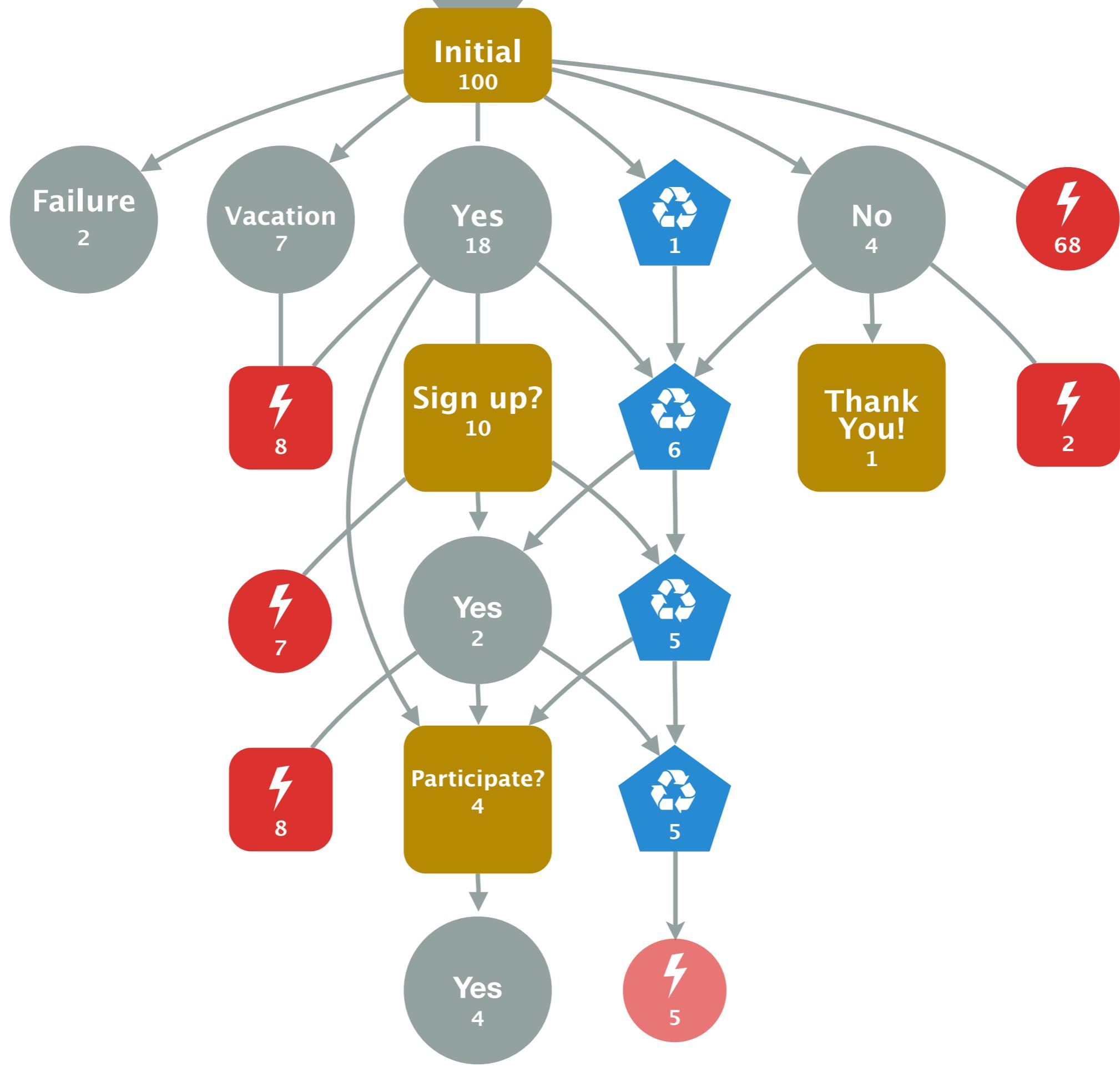


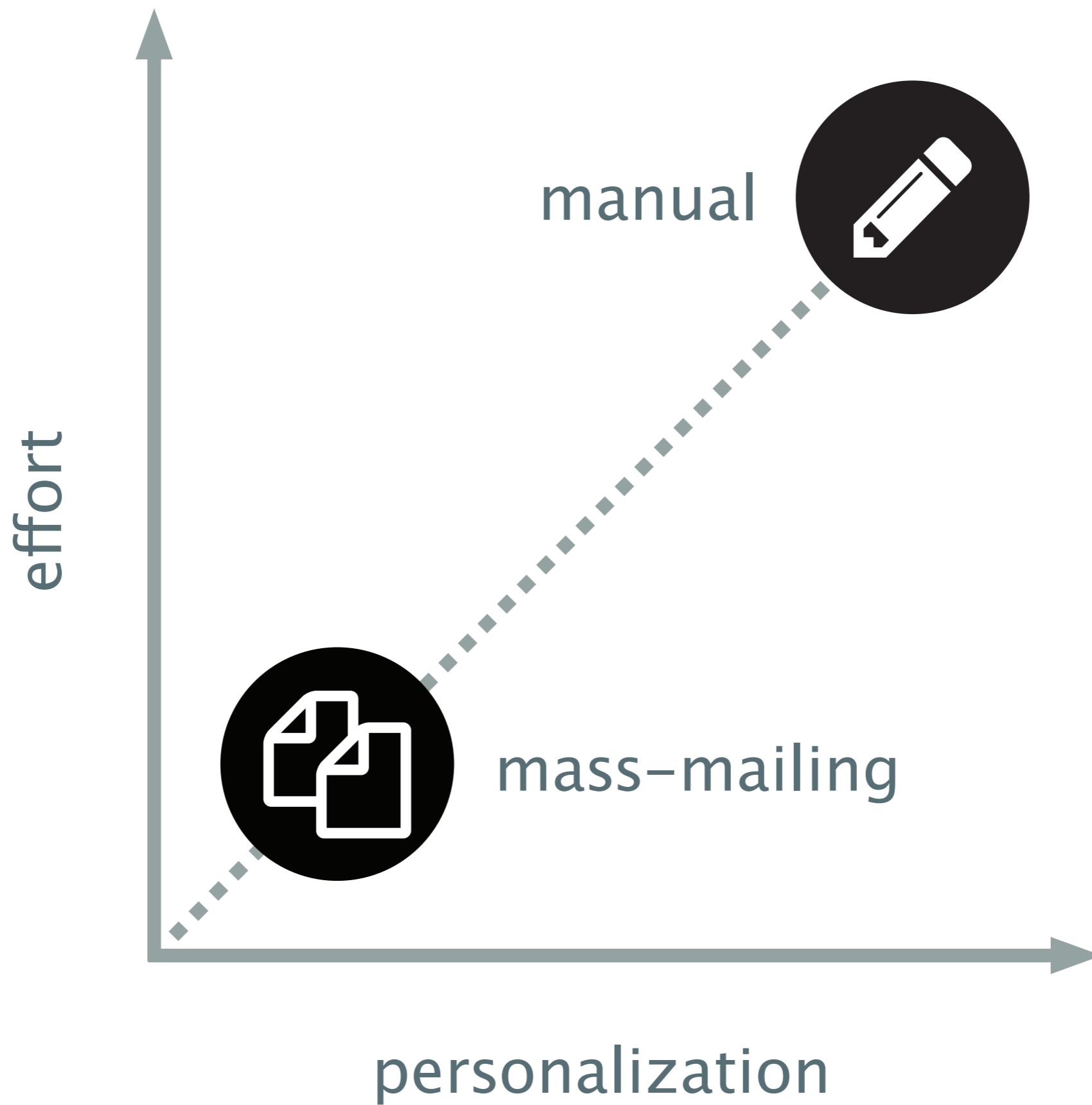
Recruiting Exchange Students, 1

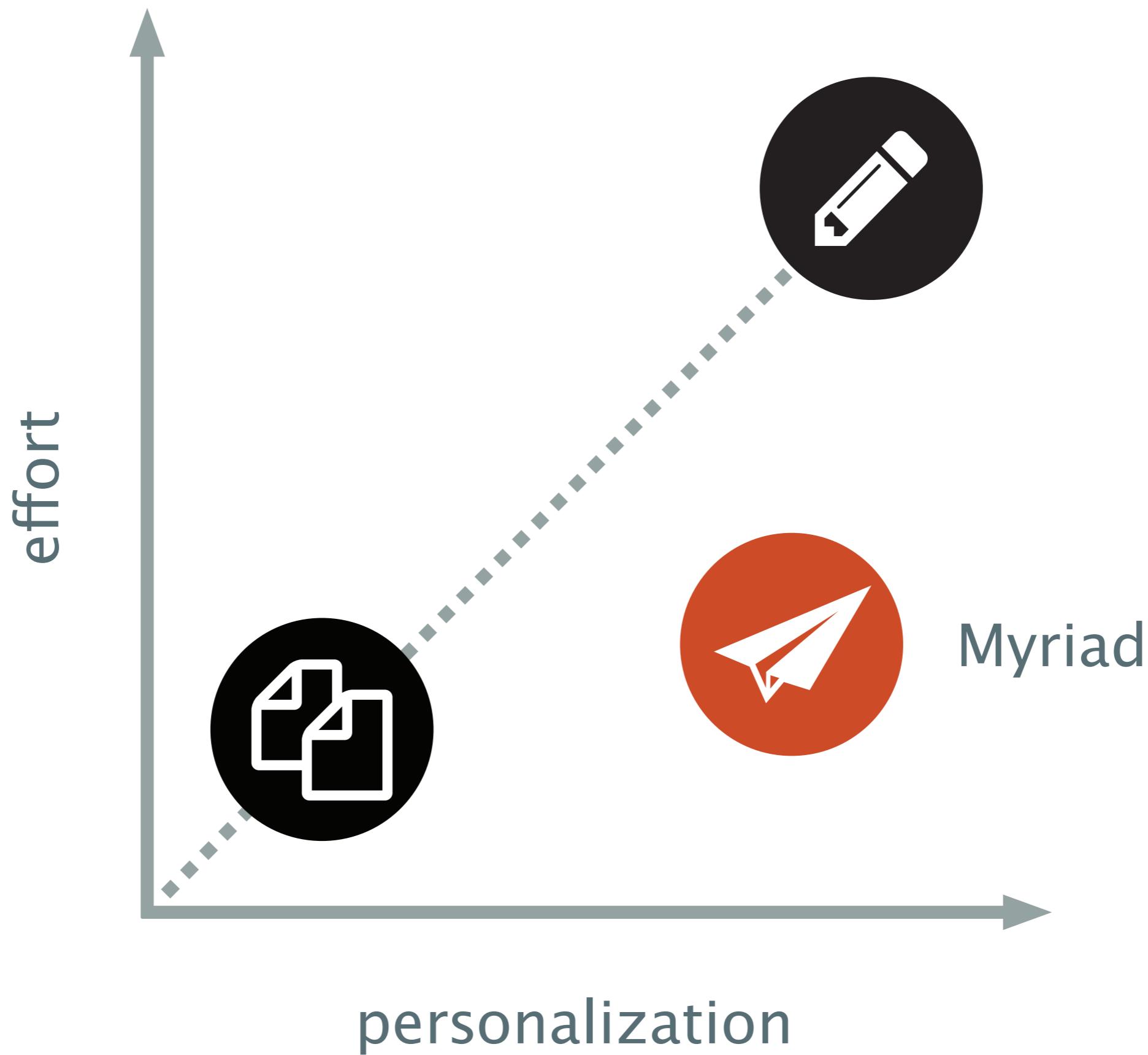
August – September 2012

$n \sim = 150$ (some emails were lost)

a posteriori analysis of sent and received emails







From: **Ludwig <ludwig@cs.stanford.edu>**
To: **Niels <niels@cs.stanford.edu>**
Subject: **Re: HCI Lunch**

Hi Niels, yes, please bring your narwhal.

On Apr 21, 2013, Niels wrote:

> Hi, should I bring my narwhal?

From:

Ludwig <ludwig@cs.stanford.edu>

To:

Niels <niels@cs.stanford.edu>

Subject: **Re: HCI Lunch**

Hi Niels, yes, please bring your narwhals.

On Apr 21, 2013, Niels wrote:

> **Hi, should I bring my narwals?**

From: Ludwig <ludwig@cs.stanford.edu>
To: Niels <niels@cs.stanford.edu>
Subject: e: HCI Lunch

Hi Niels, yes, please bring your narwhals.

On Apr 21, 2013, Niels wrote:

> Hi, should I bring my narwals?

From: Ludwig <ludwig@cs.stanford.edu>
To: Niels <niels@cs.stanford.edu>
Subject: Re: HCI Lunch

Hi Niels, yes, please bring your ls.

On Apr 21, 2013, Niels wrote:

> Hi, should I bring my narwals?

From: Ludwig <ludwig@cs.stanford.edu>
To: Niels <niels@cs.stanford.edu>
Subject: Re: HCI Lunch

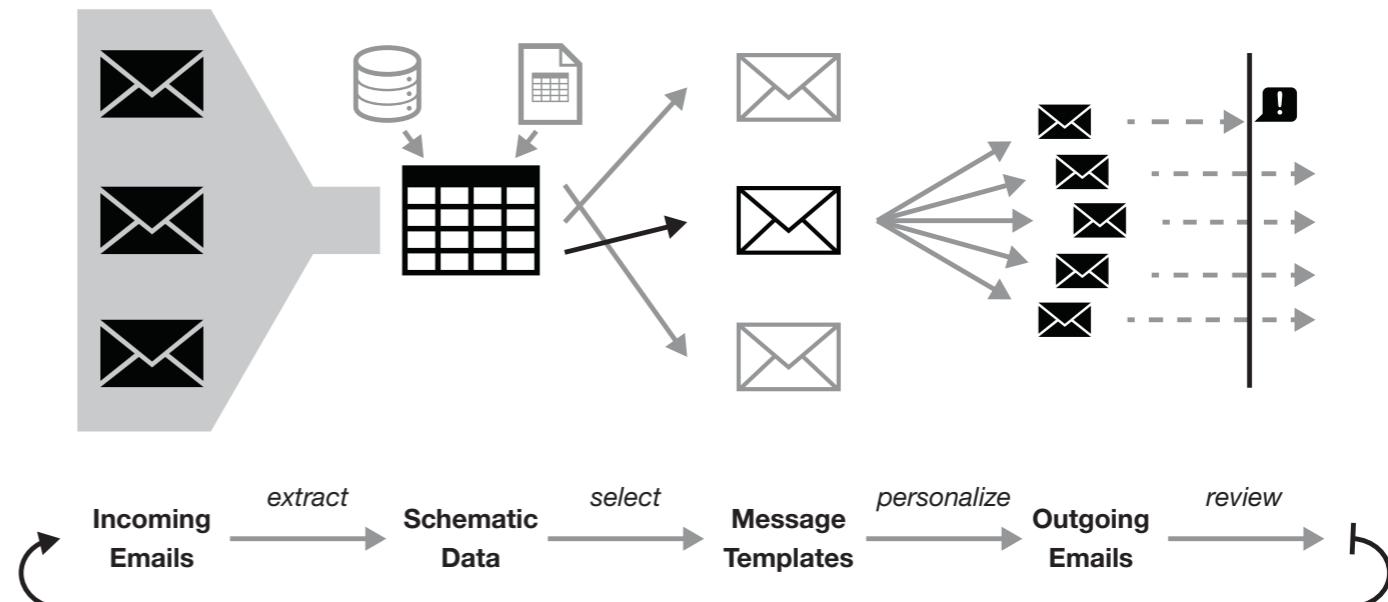
Hi Niels, yes, please bring your narwhals.

On Apr 21, 2013, Niels wrote:

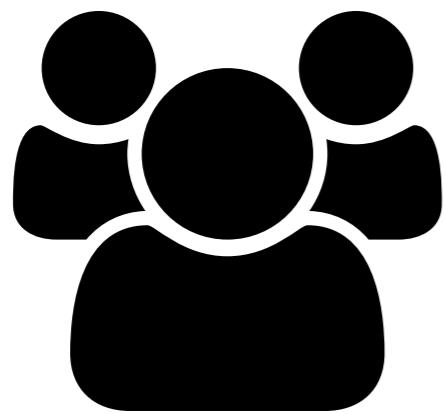
> Hi, should I bring my narwals?

**Achieve sub-linear effort for scaling up
bidirectional email communication,
while maintaining a sufficiently high
degree of perceived personalization.**

Approach & Framework



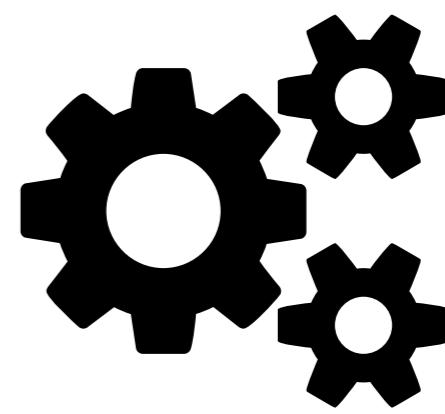
Approach



User
Observation



Prototypes



Process analysis



Campaigns > HCI Lunch Demo

New Message

Messages

Fields

Assistants

Rules

Edit Campaign

Sync Spreadsheet

Filter

Name	Your latest message	Status	Emails	attending	dietary restrictions
Sebastien Robaszkiewicz	invitation	You need to read.	2		
Cagatay Demiralp	invitation	You need to read.	2		
Michael Bernstein	invitation	You need to reply.	2	probably	
Daniela Retelny	invitation	You need to reply.	2	yes	
Baris Oztop	dietaryrestriction	You need to reply.	6	yes	food
Ethan Fast	invitation	You need to reply.	2	no	
Chinmay Kulkarni	invitation	You need to reply.	2	yes	vegetarian
Kathryn Papadopoulos	invitation	You need to reply.	2	yes	
Jeffrey Heer	invitation	You need to reply.	2	probably	
Will McGrath	invitation	You need to reply.	2	no	
Joy Kim	not attending	You need to reply.	4	no	
Gilbert Bernstein	invitation	You need to reply.	2	probably	
Ludwig Schubert	invitation	They need to reply.	1		
Zhicheng Liu	invitation	They need to reply.	1		
Kanit Wongsuphasawat	not attending	They need to reply.	6	no	
Jesse Cirimele	invitation	They need to reply.	1		
Nicolas Kokkalis	attending	They need to reply.	3	yes	
Chinmay Troll	invitation	They need to reply.	1		
Jesse Cirimele	not attending	They need to reply.	3	no	

CAMPAIGNS > Find a new housemate

ADD**EXPORT ALL****▼ search**

<input type="checkbox"/> NAME	RECEIVED	LATEST MSG
<input type="checkbox"/> Laura Flores	3:17 PM	Me: Initial En
<input type="checkbox"/> Roy Wilson	Jan 7	Me: Initial En
<input type="checkbox"/> Mary Jenkins	Jan 2	Them: Hi, tha
<input type="checkbox"/> Martin Rogers	Dec 30	Me: Initial En

OF RESULTS PREVIOUS SEARCHES

7 (5 NEW) TEMPLATE:"Ask about details" SMOKER:"Yes"

5 TEMPLATE:"Ask about details" SMOKER:"No"

20 TEMPLATE:"Initial Message"

FIRST NAME

text

LAST NAME

text

UNREAD

 YES NO ANY

NOT RESPONDED

 YES NO ANY

LATEST MESSAGE

text

COMING

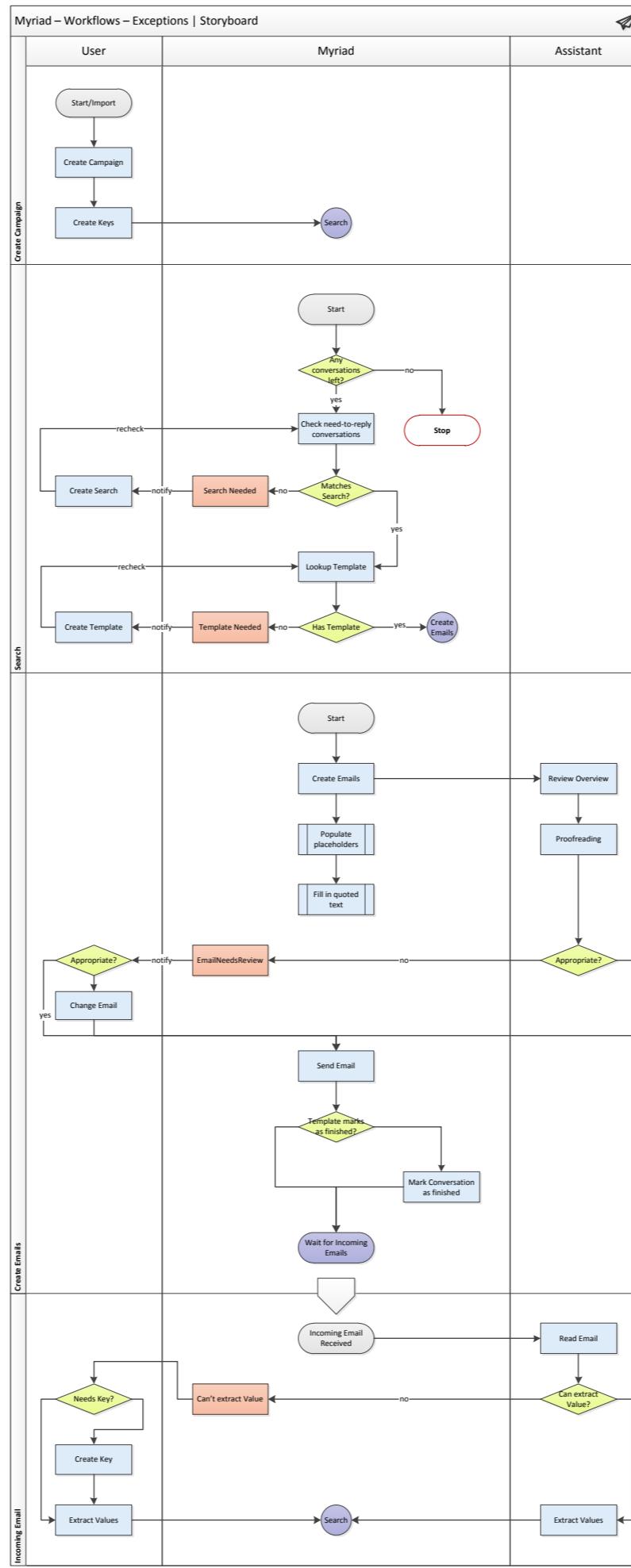
Yes

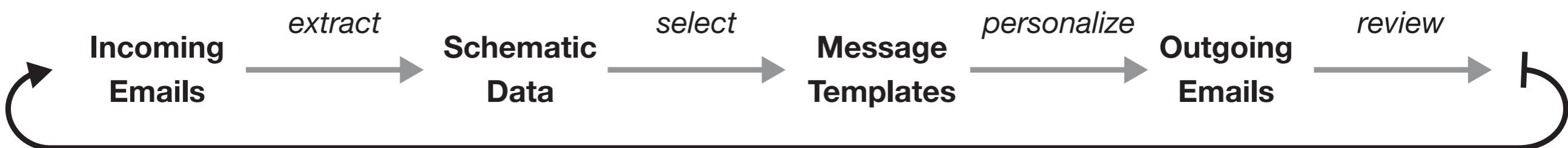
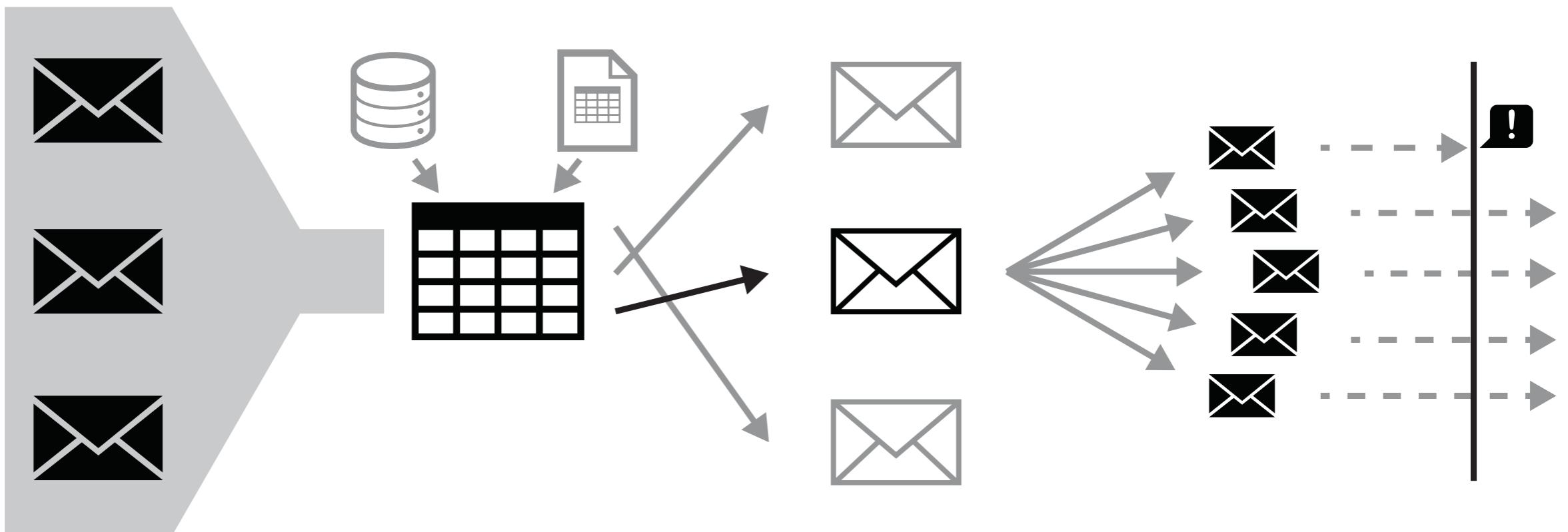
 is empty

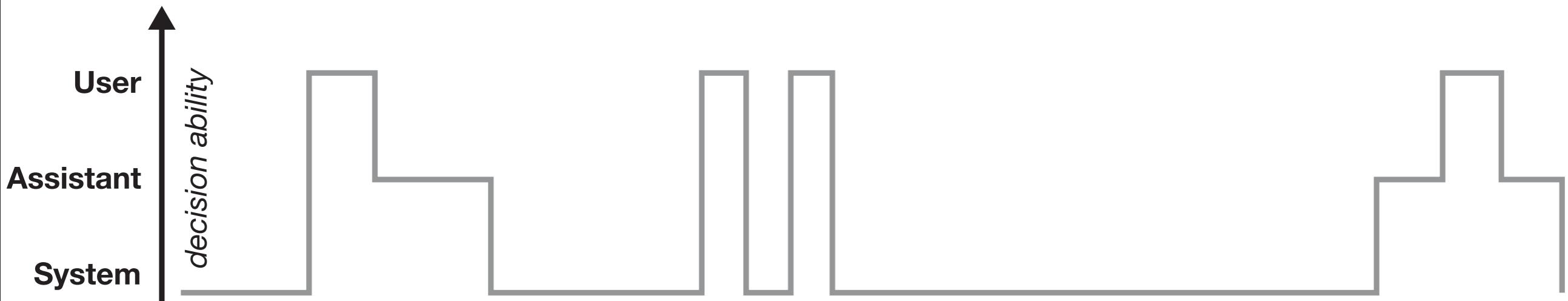
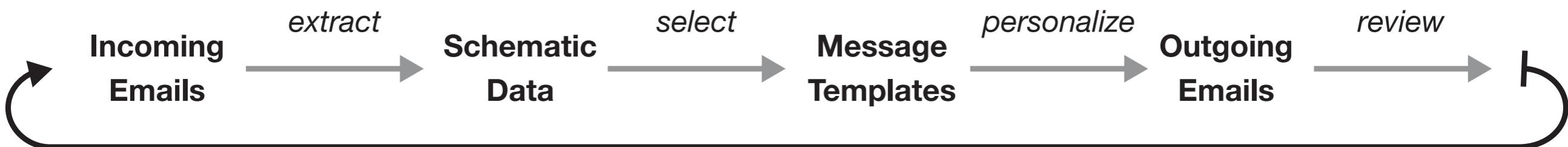
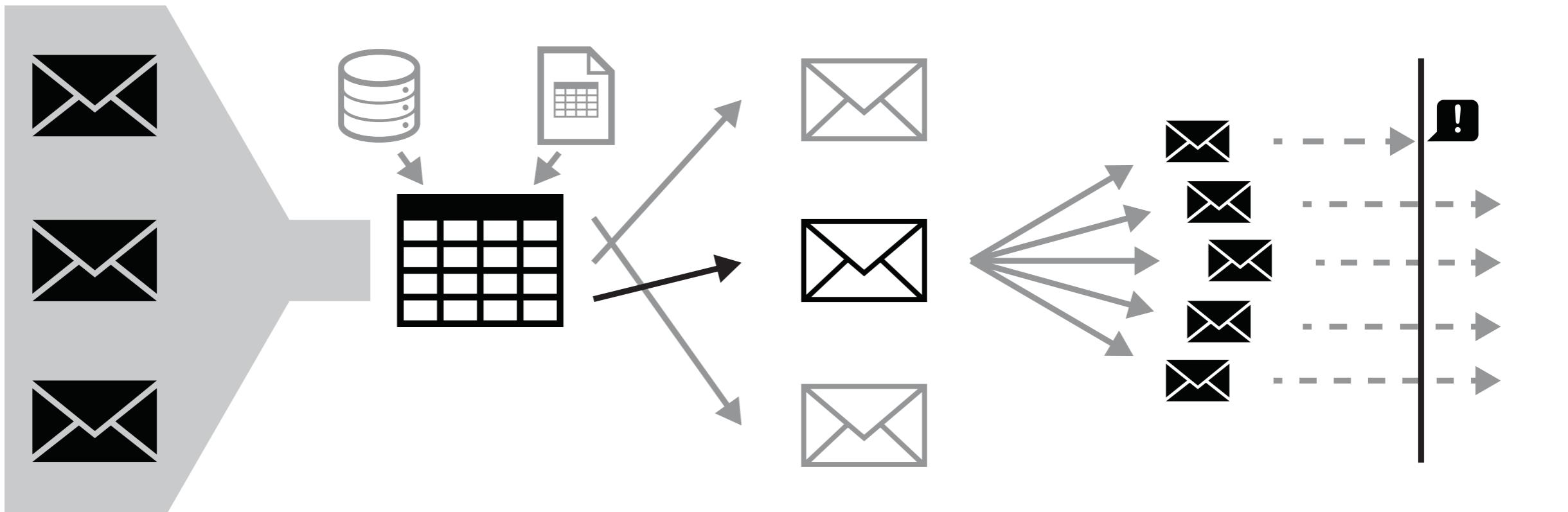
SMOKER

text

 is empty**SEARCH**



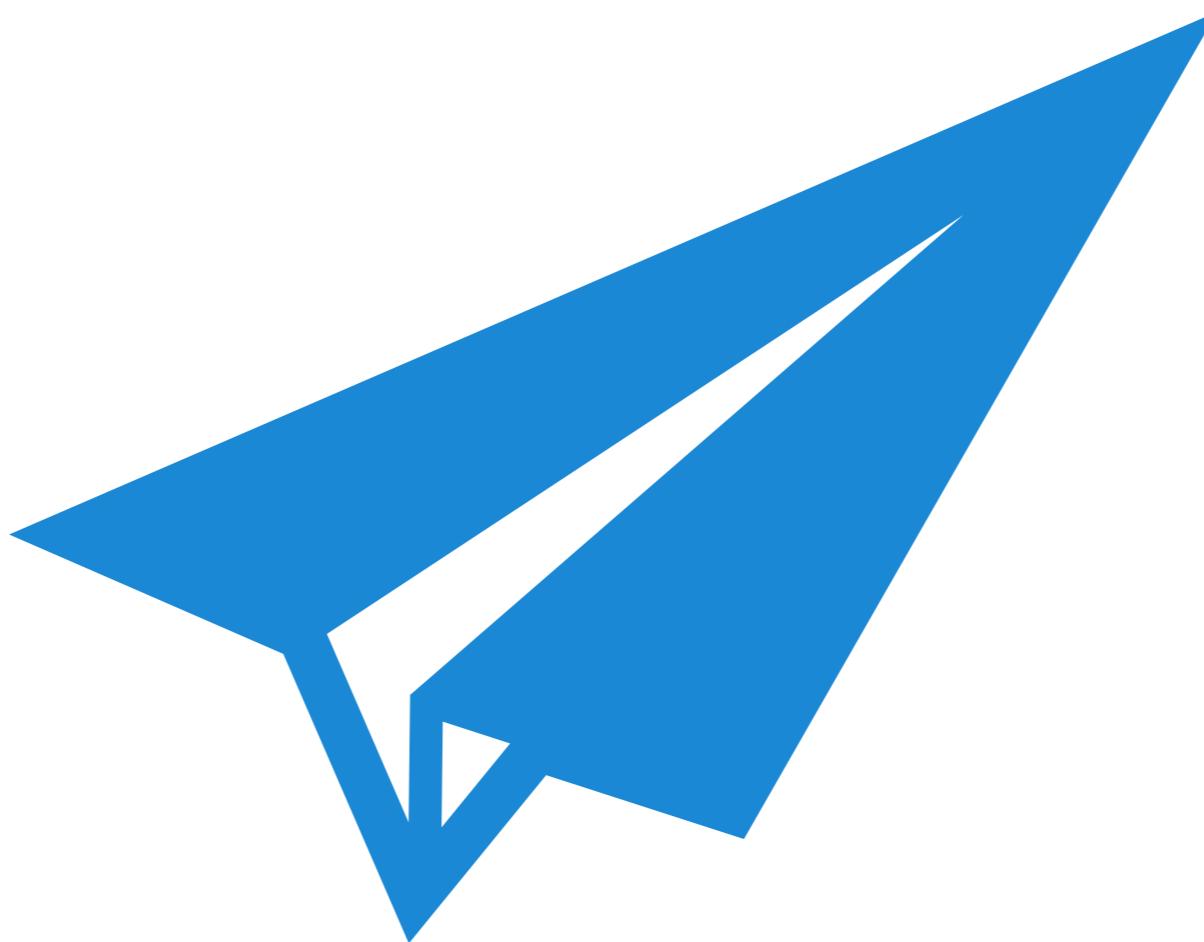


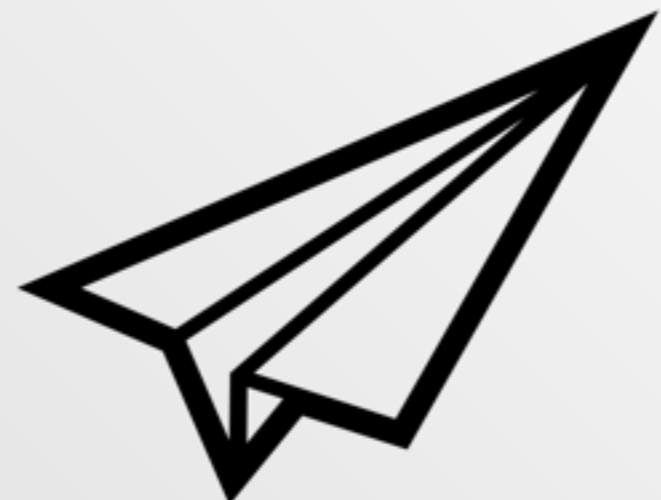


Elicited Requirements

- Truly Personalized Messages
- Message Reusability
- Careful Automation
- Information Extraction
- Interoperability with existing mail clients

Myriad





Myriad

Organized mailmerge for massive parallel, yet individual conversations.

I'll give it a try.



Choose an account

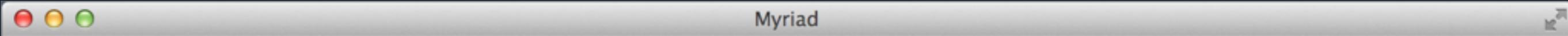
**Ludwig Schubert**

ludwigschubert@gmail.com >

**Ludwig Schubert**

ludwig.schubert@qlearning.de >

Add account >

[Campaigns](#)[Activity](#)[Contacts](#)

Myriad

[470 Notifications](#) ▾

Campaigns

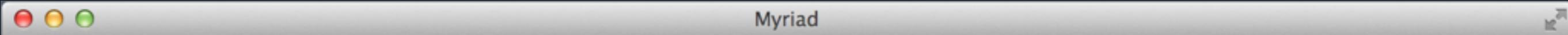
❶ Signed in!

[New Campaign](#)

Campaigns

Name

[State Machine Tests](#)[Testing attachments](#)[Exchange Students - Last 5 Candidates Interviews](#)[Another email address](#)[Bike Selling](#)[TestWIthoutNames](#)[labeltest42](#)[Simple Autoresponder](#)[Rules Test on Production System](#)[labeltest2](#)[labeltest](#)[importing](#)[Test with weird placeholders](#)[First sending testing](#)[Test for StartX](#)[Port To TMM List Standard Exchange](#)



Campaigns > Rules Test on Production System

New Message

Messages

Fields

Assistants

Rules

Edit Campaign

Sync Spreadsheet

Filter

Name	Your latest message	Status	Emails	Zeitstempel	Group	Trigger
Ludwig Schubert	test new observer 2	They need to reply.	1			
Test 1 Last 1	Auto Responder	They need to reply.	1	19.04.2013 15:30:42	1	
Second User	Triggered Message	They need to reply.	2	19.04.2013 15:35:43	2	Yes
Third Contact	Triggered Message	They need to reply.	2	19.04.2013 16:03:55	3	Yes
Fourth LastName	Auto Responder	They need to reply.	1	19.04.2013 16:13:25	4	
Ludwig Schubert	Triggered Message	They need to reply.	3	19.04.2013 17:00:08	5	Yes
Nicolas Kokkalis	Triggered Message	They need to reply.	3	19.04.2013 20:00:16	3	Yes
Ludwig15 Schubert15	Auto Responder	They need to reply.	1	19.04.2013 20:14:37	5	
Cron Job	Auto Responder	They need to reply.	1	19.04.2013 21:54:28	1	
ich@ludwigschubert.de	n/a	They need to reply.	2			
Ludwig Schubert	n/a	No emails yet.	0			
ludwig.schubert@stanford.edu	n/a	No emails yet.	0			
TESTREPLYFEATURE NOW	n/a	No emails yet.	0			
ludwigschubert@stanford.edu	n/a	No emails yet.	0			
ludwig@ironrose.de	n/a	No emails yet.	0			
ludwig.schubert@cdtm.de	n/a	No emails yet.	0			
schubert@cs.stanford.edu	n/a	No emails yet.	0			
Christian Ikas	Auto Responder	Finished	2	19.04.2013 22:50:27	2	



Compose new message

Cancel Send**ID** e.g. 'initial', 'yes', 'thanks'

Give your message an ID, so that you can reuse it in the future. IDs are not visible to your recipients.

To**Subject** Welcome to Myriad's production system Rule Test, {{first_name}}!

Contacts who already sent or received an email in this campaign will receive the original email's subject.

[Add CC](#) [Add BCC](#) Use [{{first_name}}](#) , [{{last_name}}](#) or custom [fields ▾](#) to
personalize your templates.



{{quoted_text}}

After-sending Actions

Add Action

Reuse message

Auto Responder

9

Triggered Message

4

test new observer 2

1



Compose new message

Cancel Send**ID** e.g. 'initial', 'yes', 'thanks'

Give your message an ID, so that you can reuse it in the future. IDs are not visible to your recipients.

To**Subject** Welcome to Myriad's production system Rule Test, {{first_name}}!

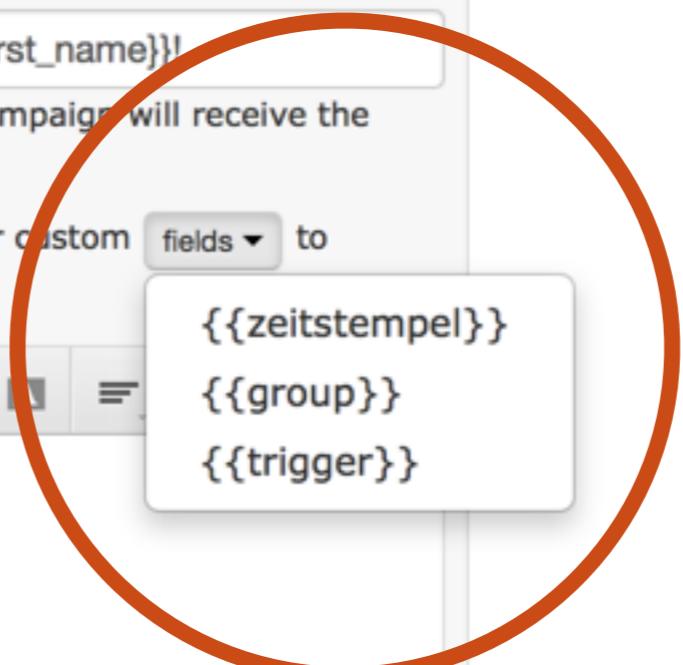
Contacts who already sent or received an email in this campaign will receive the original email's subject.

Add CC Add BCC Use {{first_name}}, {{last_name}} or custom

personalize your templates.



{{quoted_text}}



Reuse message

Auto Responder

9

Triggered Message

4

test new observer 2

1

After-sending Actions

Add Action



Compose new message

Cancel Send**ID** e.g. 'initial', 'yes', 'thanks'

Give your message an ID, so that you can reuse it in the future. IDs are not visible to your recipients.

To "Test 1 Last 1" <test1@ludwigschubert.de>**Subject** Welcome to Myriad's production system Rule Test, {{first_name}}!

Contacts who already sent or received an email in this campaign will receive the original email's subject.

Add CC Add BCC Use {{first_name}}, {{last_name}} or custom fields to personalize your templates.



{{quoted_text}}

After-sending Actions

 Add Action

Reuse message

Auto Responder **Sent last** 9

Triggered Message

Suggested

test new observer 2 1

Campaigns Activity Contacts

470 Notifications

one off 1	1	100.0%
one off	1	0.0%
Waiting list	1	100.0%
Conditional Offer	3	66.7%
Thanks for taking the quiz	10	20.0%
make up quiz before interview	1	0.0%
interview round 3	4	75.0%
request skype only	2	50.0%
Quiz URL	14	28.6%
request skype	21	76.2%
exact dates	3	100.0%
interview round 2 - clarification	20	29.4%
interview round 2	19	68.8%
rejection	19	26.3%
interview round 1	4	100.0%
all questions at once	1	0.0%
skills survey	19	47.4%
request resume	4	50.0%
clarify undergraduate transcripts	5	100.0%
request transcript - reminder	11	54.5%
request skype - annabelle exception	1	100.0%
clarify english transcripts	1	100.0%
request transcript	44	61.4%



Campaigns

Activity

Contacts

470 Notifications

[Campaigns](#) > [Rules Test on Production System](#) > **Rules**

Send Message	if...	Actions	New Matches	automatically?
Auto Responder	'Group' = not blank	none	none	ON <input checked="" type="checkbox"/>
Triggered Message	Last sent message = Auto Responder 'Trigger' = 'Yes'	none	none	ON <input checked="" type="checkbox"/>



Campaigns > Exchange Students > Rules

Send Message	if...	Actions	New Matches	automatically?
request transcript	'university_coded' = not blank	none	none	<input checked="" type="checkbox"/> ON
request skype	Last sent message = request transcript Status = unrepplied 'university_coded' = not blank 'skype_handle' = blank	none	none	<input type="checkbox"/> OFF
request transcript - reminder	Last sent message = request transcript Status = replied 'transcripts' = blank	none	5 Send View	<input type="checkbox"/> OFF
skills survey	'send skills survey' = 'TRUE'	none	3 Send View	<input type="checkbox"/> OFF
interview round 1	'interview' = '1'	none	none	<input type="checkbox"/> OFF
rejection	'interview' = 'no'	none	none	<input type="checkbox"/> OFF
interview round 2 - clarification	Last sent message = interview round 2	none	none	<input type="checkbox"/> OFF
Quiz URL	'quiz url' = not blank	none	none	<input type="checkbox"/> OFF
interview round 3	'interview' = '3'	none	none	<input type="checkbox"/> OFF
Thanks for taking the quiz	'attends quiz' = 'yes'	none	3 Send View	<input type="checkbox"/> OFF



Campaigns

Activity

Contacts

470 Notifications

[Campaigns](#) > [Exchange Students](#) > **Assistants**

Shared with these people:

Assistant	Email
Ludwig Schubert	ludwigschubert@gmail.com
Christian Ikas	christian.ikas@gmail.com

Share

If the person you want to share access to your campaign with doesn't yet have a myriad account, they will receive an invitation to myriad and are given access once they register.

Please note that myriad requires a *Gmail* or *Google Apps* account.

Gmail Email Address

Share access

Try it out here - testin... x Myriad x Email Manager - Admin x bedem19 - Yahoo! Mail x Greg Wientjes - oDesk x Software QA Engineer x gv.stanford.edu/topics/social-commitment--2/conversations

Log Campaigns Myniad Testing

easymonk(employer on calling usa), stanfordhci

Skype Conversation Call View Tools Help

star easymonk(employer on calling usa), stanfor... (i) Close

(i) easymonk(employer on calling usa) (i) Stanford HCI

Video call Call group + Call

that will be used to personalize responses. Please complete that field where appropriate, so that we can use it in a template. The template will contain a sentence like "Hi, we're glad you liked {{what_they_liked}}". Please fill in the field "what_they_liked" so that the sentence makes sense for this particular student.

(This only applies to students who mentioned liking the class.) 7:17 PM

Hi Bassey, I see you're extracting parts of the email, thanks! 7:26 PM

However, we need rewordings or sentence fragments that grammatically make sense in the sentence "Hi, we're glad you liked {{what_they_liked}}!" 7:26 PM

So, for Daniel Souza that would be "the social features". 7:27 PM

The email we write him will then be "Hi, we're glad you liked {{what_they_liked}}!" => "Hi, we're glad you liked the social features!" 7:27 PM

Could you rewrite them, please? 7:28 PM

via Skype (i)

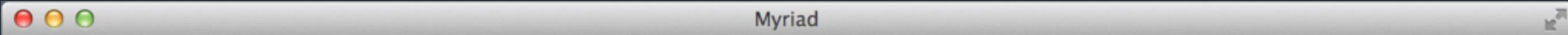
group (0-4)	feature: (yes no n/a)	10:best n/a	suggestion? (yes no n/a)	cluster: (yes no n/a)	what_they_liked
1	no		no	no	
2	yes	5	yes		
2	no		no	no	
2	no		yes	no	
2	no		no	no	
2	yes	4	no	no	social features but was a little confused.
3	no		no	no	
3	no		no	no	
3	no		no	no	
4	no	10	yes		I was able to see what friends has has done in the social feature and that was good.
4	yes	10	no	no	This experimental social features have nice idea and I like them
4	yes	8	no	no	However, the idea is neat
4	yes	5	no	no	I started in the course is becoming a real product in my design studio, we're really excited to see it working for real
0			yes		

EN 7:28 PM 3/7/2013

Learnings from Implementation

Admin Panel

For Support & Accountability



Admin > All Users

Dashboard

All Users

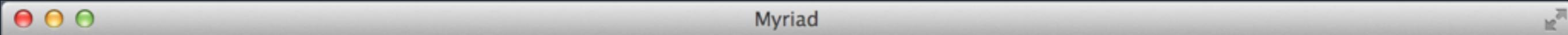
User Log

All Campaigns

Current Messages

Current Emails

ID	Username	Email	Last active	🔍	👤	🔄	Actions
2	Ludwig Schubert	ludwigschubert@gmail.com	less than a minute ago	🔍	👤	🔄	<input checked="" type="checkbox"/>
1	Nicolas Kokkalis	kokkalis@sse.stanford.edu	about 7 hours ago	🔍	👤	✖️	<input checked="" type="checkbox"/>
7	Nicolas Kokkalis	nicolas@startx.stanford.edu	about 13 hours ago	👤	✖️	<input checked="" type="checkbox"/>	
16	Michael Bernstein	msb@cs.stanford.edu	1 day ago	👤	✖️	<input checked="" type="checkbox"/>	
76	Leona Teixeira	leona@startx.stanford.edu	1 day ago	👤	✖️	<input checked="" type="checkbox"/>	
4	Jobs StartX	jobs@startx.stanford.edu	3 days ago	👤	✖️	<input checked="" type="checkbox"/>	
56	Anh Truong	anhlt92@gmail.com	4 days ago	👤	🔄	<input checked="" type="checkbox"/>	
71	Mariah Samost	mariyah@lawgives.com	6 days ago	👤	✖️	<input checked="" type="checkbox"/>	
63	Derrick Hsiou	derrick@startx.stanford.edu	9 days ago	👤	✖️	<input checked="" type="checkbox"/>	
23	StartX Mentorship	startx_fba@startx.stanford.edu	10 days ago	👤	✖️	<input checked="" type="checkbox"/>	
75	Chengdiao Fan	chengdiao@gmail.com	11 days ago	👤	✖️	<input checked="" type="checkbox"/>	
22	Pooja Garg	pooja@startx.stanford.edu	13 days ago	👤	✖️	<input checked="" type="checkbox"/>	
54	Tony Lai	tony@lawgives.com	13 days ago	👤	✖️	<input checked="" type="checkbox"/>	



Admin > User Log

Dashboard

All Users

User Log

All Campaigns

Current Messages

Current Emails

User	Type	Message	At
Ludwig Schubert	TemplateSentToSearchResultsActivityNotification	Our server is sending your message to 3 contacts.	2013-02-23 05:34:42 UTC
Ludwig Schubert	TemplateSentToSearchResultsActivityNotification	Our server is sending your message to 2 contacts.	2013-02-23 06:11:09 UTC
Jobs StartX	TemplateSentActivityNotification	Our server is sending your message to 2 contacts.	2013-02-24 23:42:05 UTC
Jobs StartX	TemplateSentActivityNotification	Our server is sending your message to only 2 contacts out of 4 contacts, the others had already received the message before.	2013-02-24 23:43:27 UTC
Jobs StartX	TemplateSentActivityNotification	Our server is sending your message to only 2 contacts out of 6 contacts, the others had already received the message before.	2013-02-24 23:45:36 UTC
Jobs StartX	TemplateSentActivityNotification	Our server is sending your message to 2 contacts.	2013-02-25



Admin > All Campaigns

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Current Messages

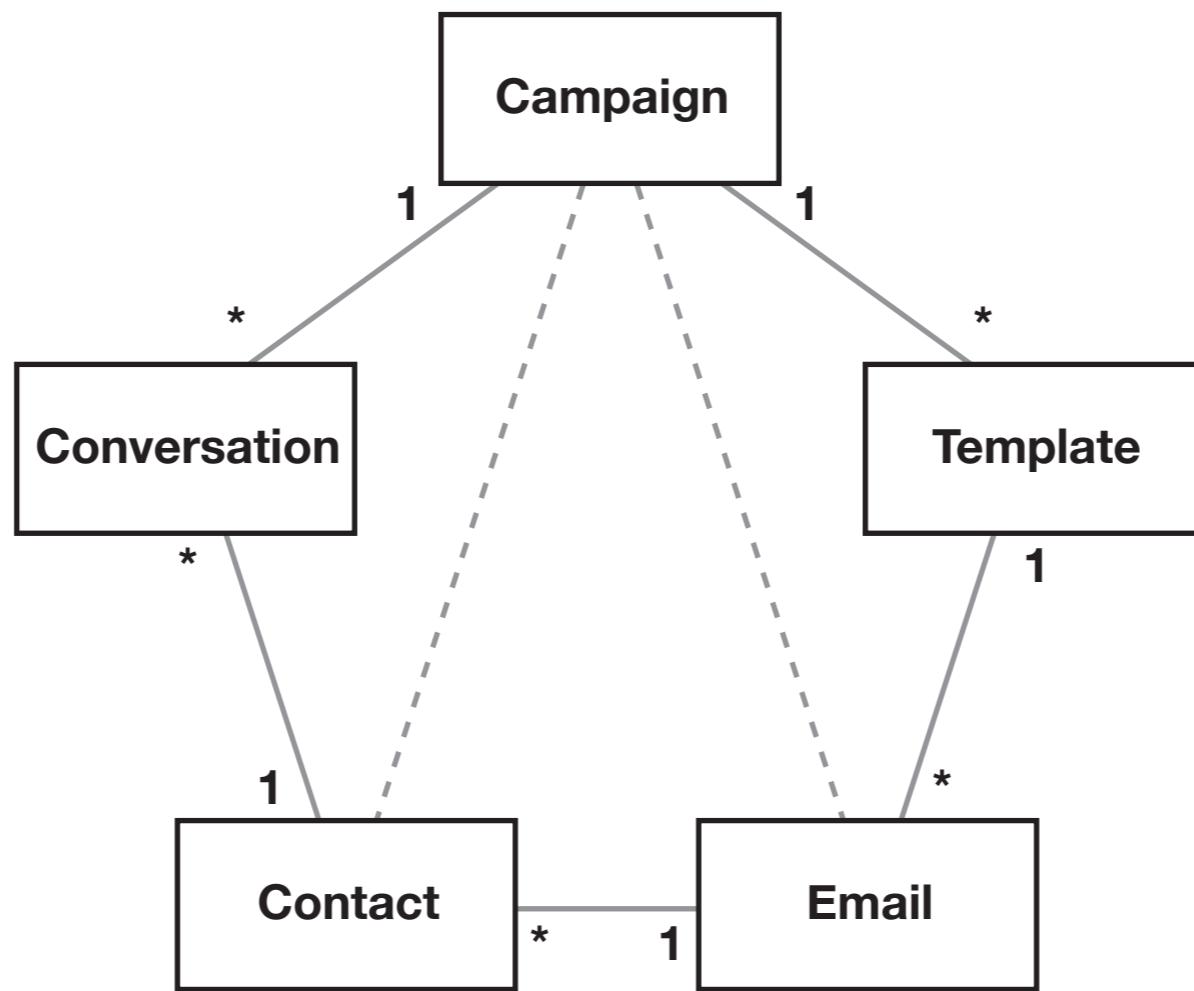
Current Emails

User	Campaign Name	Campaign ID	Recipients	Date/Time
Nicolas Kokkalis	Stanford Startup Weekend	349	117	Nov 4
Michael Bernstein	HCI Seminar invite	348	8	Nov 2
Michael Bernstein	CS 147 TA invite	347	13	Oct 31
Leona Teixeira	F13 Staff Acceptance from 1st Pass	346	30	Oct 30
Leona Teixeira	F13 Staff Acceptance from 2nd Pass	345	18	Oct 30
Mariah Samost	Lawyer_Follow up 131030	344	29	Oct 30
Jobs StartX	F13 2nd Pass Round I Invitations	343	19	Oct 28
Mariah Samost	Client follow up_131028	342	27	Oct 28
Derrick Hsiou	First Rounf Reject F13	341	60	Oct 26
Derrick Hsiou	med second round f13	339	14	Oct 26
Derrick Hsiou	hardware second round f13	338	5	Oct 26
Derrick Hsiou	IT second round f13	337	26	Oct 25
StartX Mentorship	LMM Invite S13	336	22	Oct 25
Chengdiao Fan	test 1	335	0	Oct 24

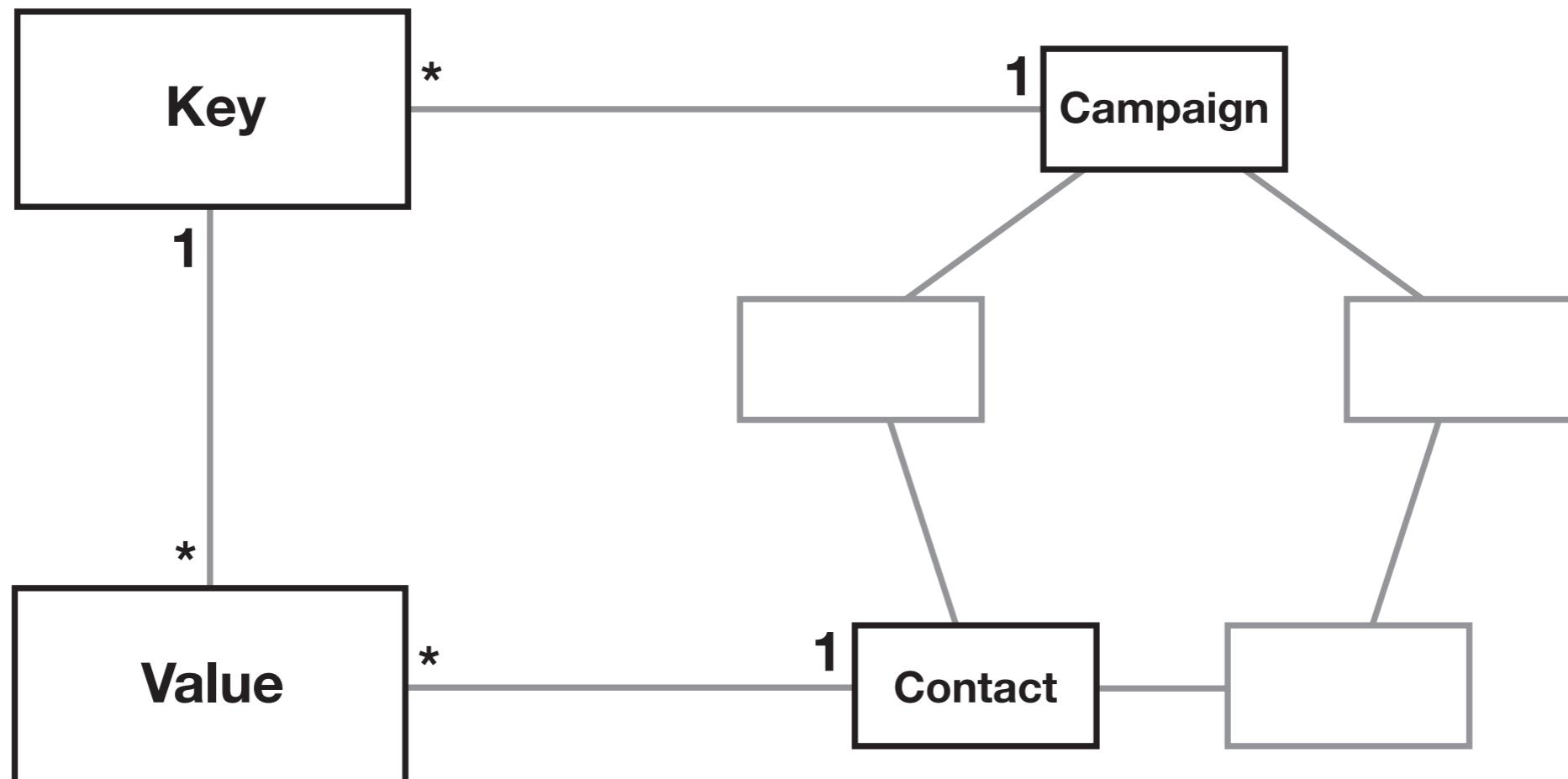
Uncommon Patterns

For working with Relational Databases

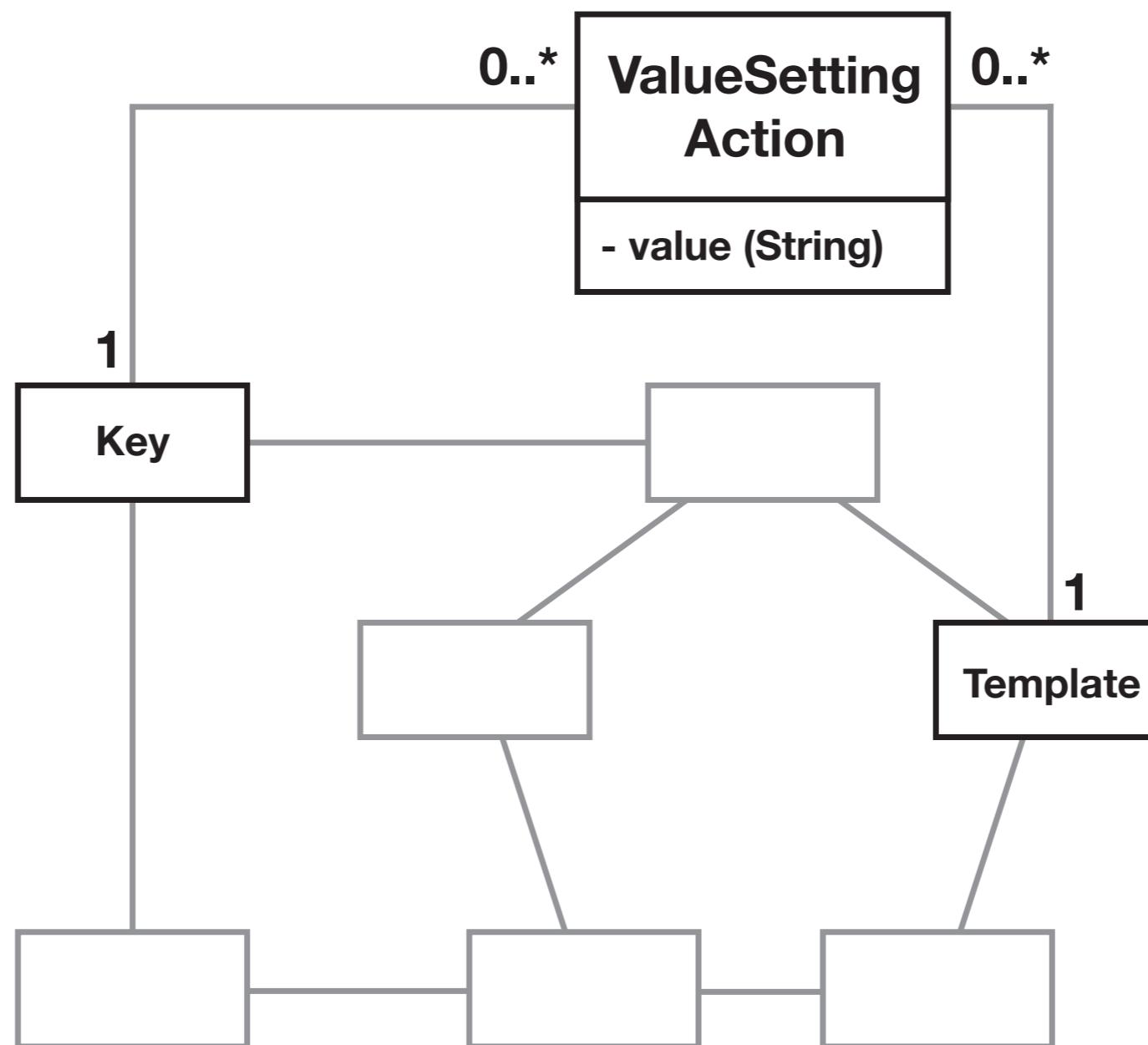
Core Classes



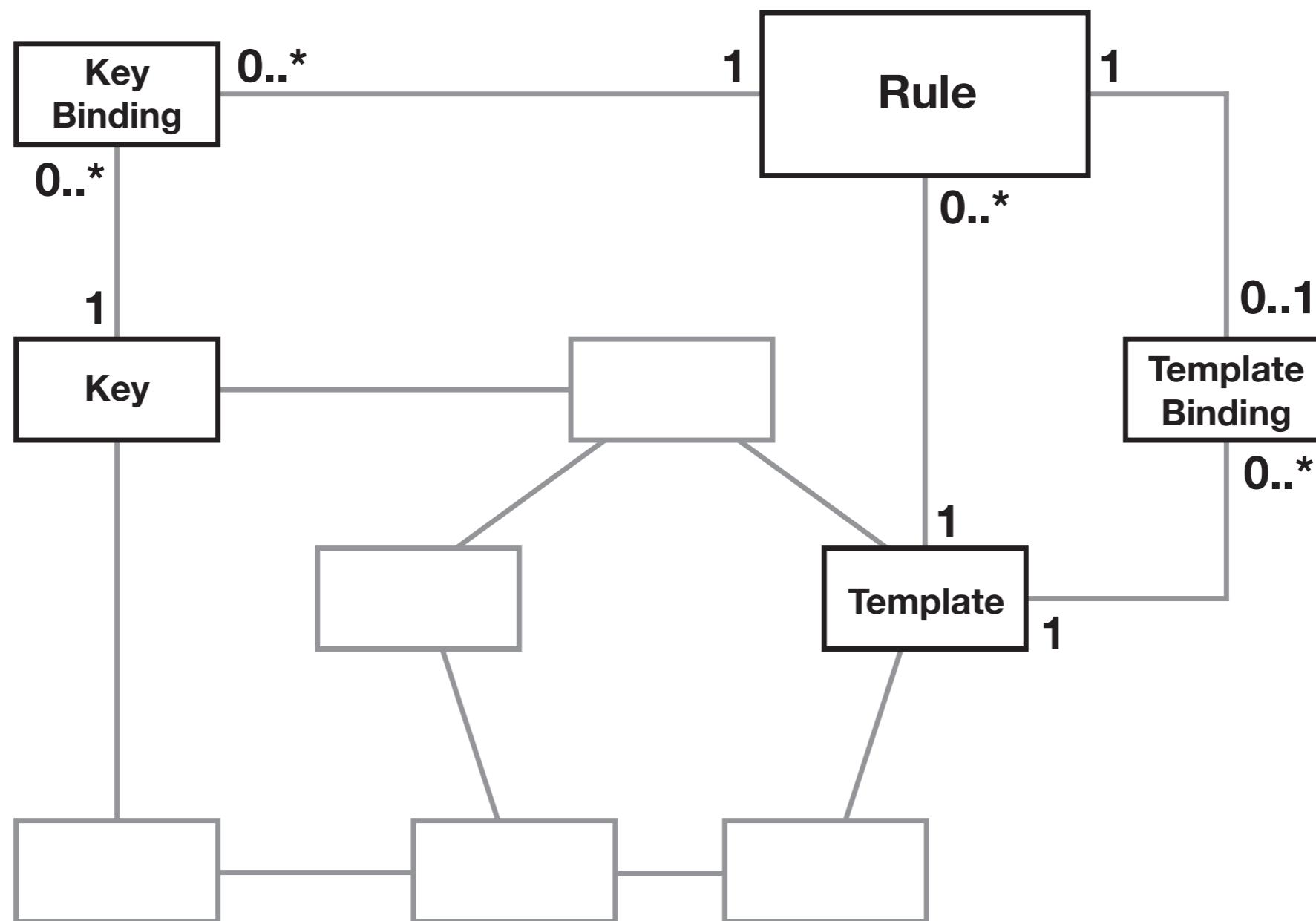
Arbitrary Key/Value Pairs



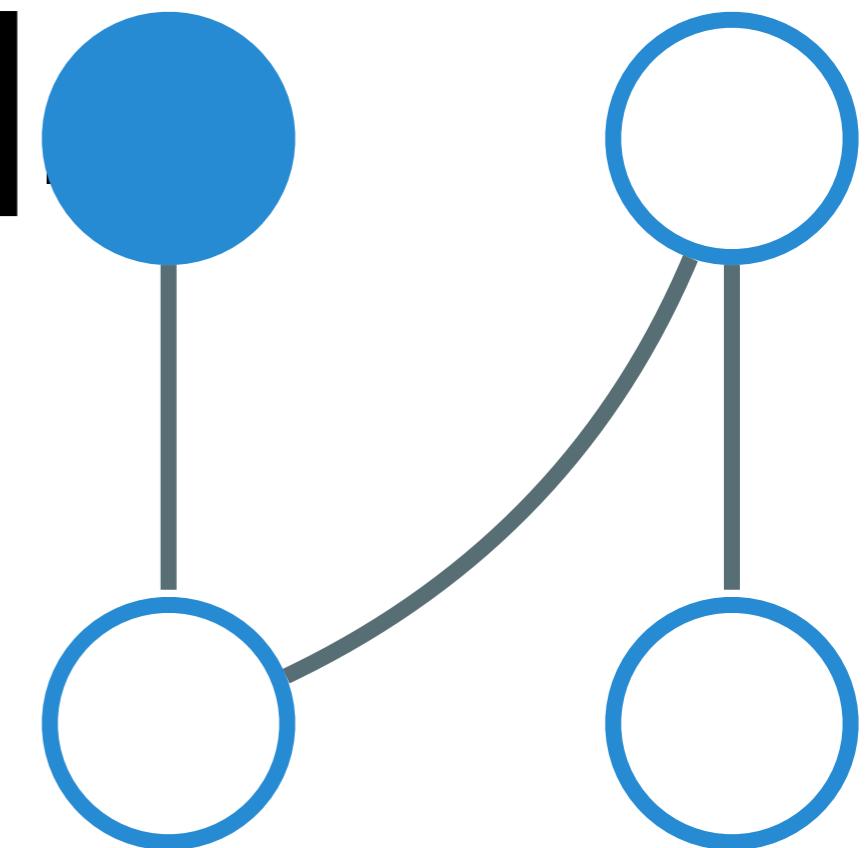
State transition output conditions



State transition conditions



Use git[flow]



Even on a three to five person development team.

Please teach basics of VCSs to CS students.

Goal

Actual

improve efficiency

2-10 fold, after training

maintain personalization

with help from assistants

real-world usage

yes, but limited

intuitively usable

requires some training

interoperable

Google Mail & Docs & Forms

abstract framework

yes, working on publishing

Stanford Brainiacs' Answer to Email Overload

NBC BAY AREA

HOME

NEWS

VIDEO

WEATHER

INVESTIGATIONS

SPORTS

ENTERTAINMENT

LOCAL

CALIFORNIA

U.S. & WORLD

SPONSORED: SPORTS

HEALTH

TECH

WORLD

HOME > NEWS > LOCAL

Stanford Brainiacs' Answer to Email Overload

Thank You.

ludwigschubert.de/myriad

mail@ludwigschubert.de

What was the **goal** of your project again?

Show me beautiful landscape pictures of **California**!

What was your **design process**? How did you **evaluate**?

Questions!

Did you use **paper prototypes**? Other prototypes?

Tell me about **problems** with your current **system**.

What was your **development process**? Pair-Programming?

Is **anybody** actually using this for real-world email?

Aren't people afraid of **crowd workers** reading their email?

Should they? **EmailValet**? Are you a **spammer**?

Did you run **user studies**? Are you planning on **publishing**?

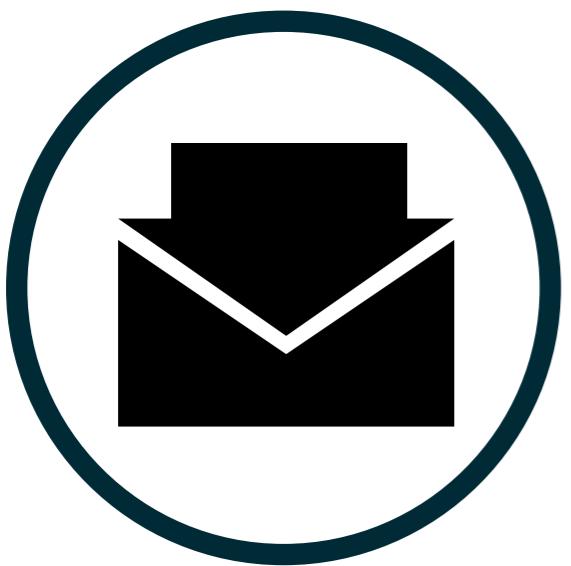
Isn't this technically helping people be spammers?

Was this an official **exchange program** that I can join, too?

What's that funky **colour scheme** on your **terminal**? Zsh?!

Open Source

Three Spin-Off Projects





maildown

Converts HTML formatted emails
into plaintext-friendly markdown.

github.com/ludwigschubert/maildown

```
<h1>Hello there!</h1>
```

Here's a **bold**

```
<a href="http://www.example.com">link</a>.
```

Hello there!

Here's a **bold* link[1].

[1] <http://www.example.com>



mail_extract

Strips an email message body
from quotes and signatures.

github.com/ludwigschubert/mail_extract

You're welcome!

--

Don

On June 24, Alan T. wrote:

> Thank you!

```
{ body =>
"You're welcome!",
signature =>
"--\nDon",
quotes =>
"Thank You!" }
```

Subject: Food

Christian Ikas christian.ikas@gmail.com

(7 months ago) **Mar 29**

Hello Ludwig,

Show trimmed content some chocolate chip cookies. Want some?

“

Ludwig Schubert (me) ludwigschubert@gmail.com

(7 months ago) **Mar 29**

Hallo Chris! Do you have any food?

”

2 emails

Subject: Food

Christian Ikas christian.ikas@gmail.com

(7 months ago) **Mar 29**

Hello Ludwig,
yes, I have some chocolate chip cookies. Want some?

“

On 03/29/2013 10:56 PM, Ludwig Schubert wrote:
> Hallo Chris! Do you have any food?

Ludwig Schubert (me) ludwigschubert@gmail.com

(7 months ago) **Mar 29**

Hallo Chris! Do you have any food?

”

2 emails



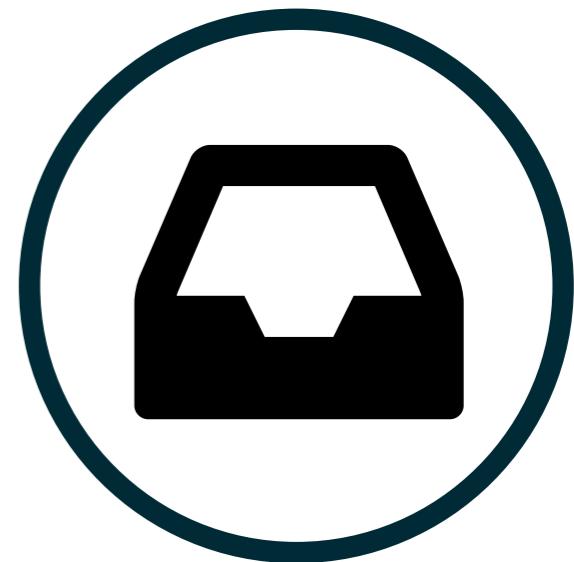
db_validate

A rake task that runs your ActiveRecord validations on existing database records.

github.com/ludwigschubert/db_validate

```
>Last login: Mon Nov  4 16:22:14 on ttys001
16:22:27 ~
$ cd myriad
16:22:31 ...s/ludwig/myriad ➜ master
$ rake db:validate
Searching for invalid records...
Records: |=====
Records: |=====
Checked 15528 records, all are valid. Good job! Bye.
16:22:58 ...s/ludwig/myriad ➜ master
$ _
```

Real-World Usage





Recruiting Exchange Students, 2

We used a Google Docs form to gather email addresses, then put students through a funnel.

1:10 295 Emails, 14 Templates, 14 Exceptions

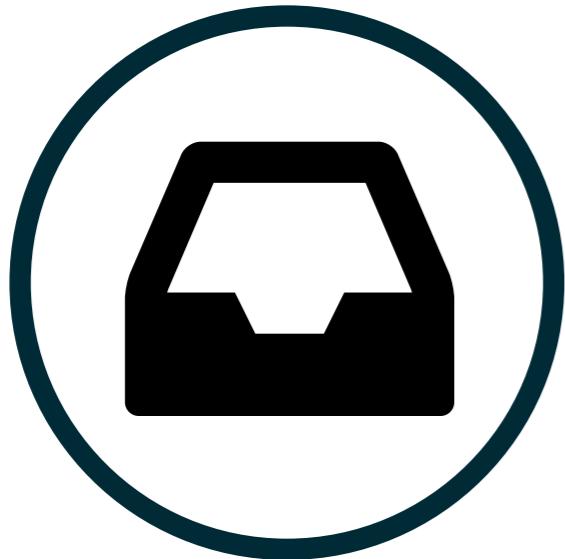


Reviewer Requests

For a special issue potential reviewers were elicited, and reviews extracted to a spreadsheet.

1:9

80 Emails, 7 Templates, 2 Exceptions



Class Administration

Professor can simply tag emails in his inbox
which are then processed by his assistant.

1:4

Aborted after two weeks, 2 Templates, unknown
Exceptions

Limitations

- Scalability
- Practicality
- Visualization
- Granularity
- Investment of Human Time



California

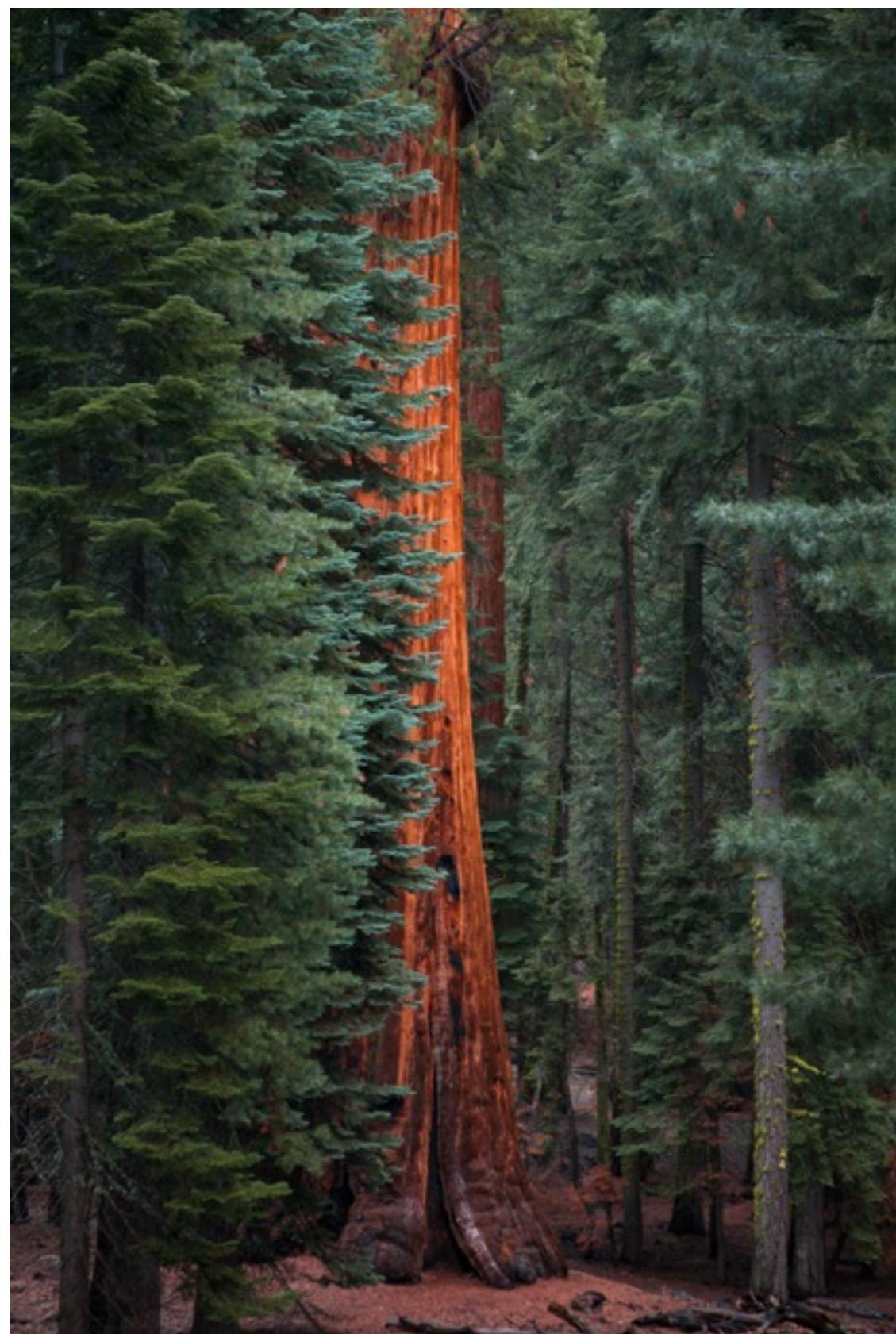
Pictures, finally!

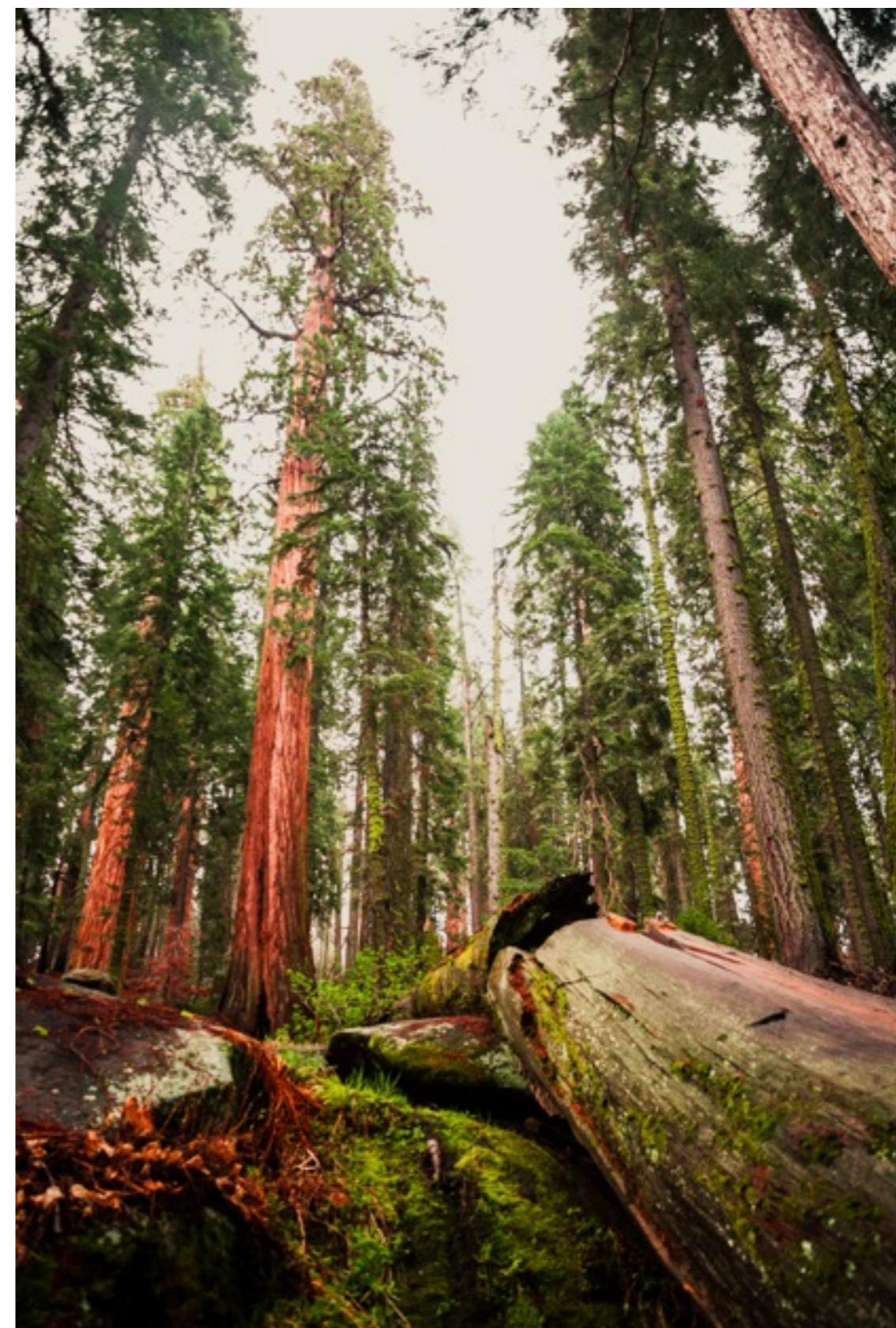
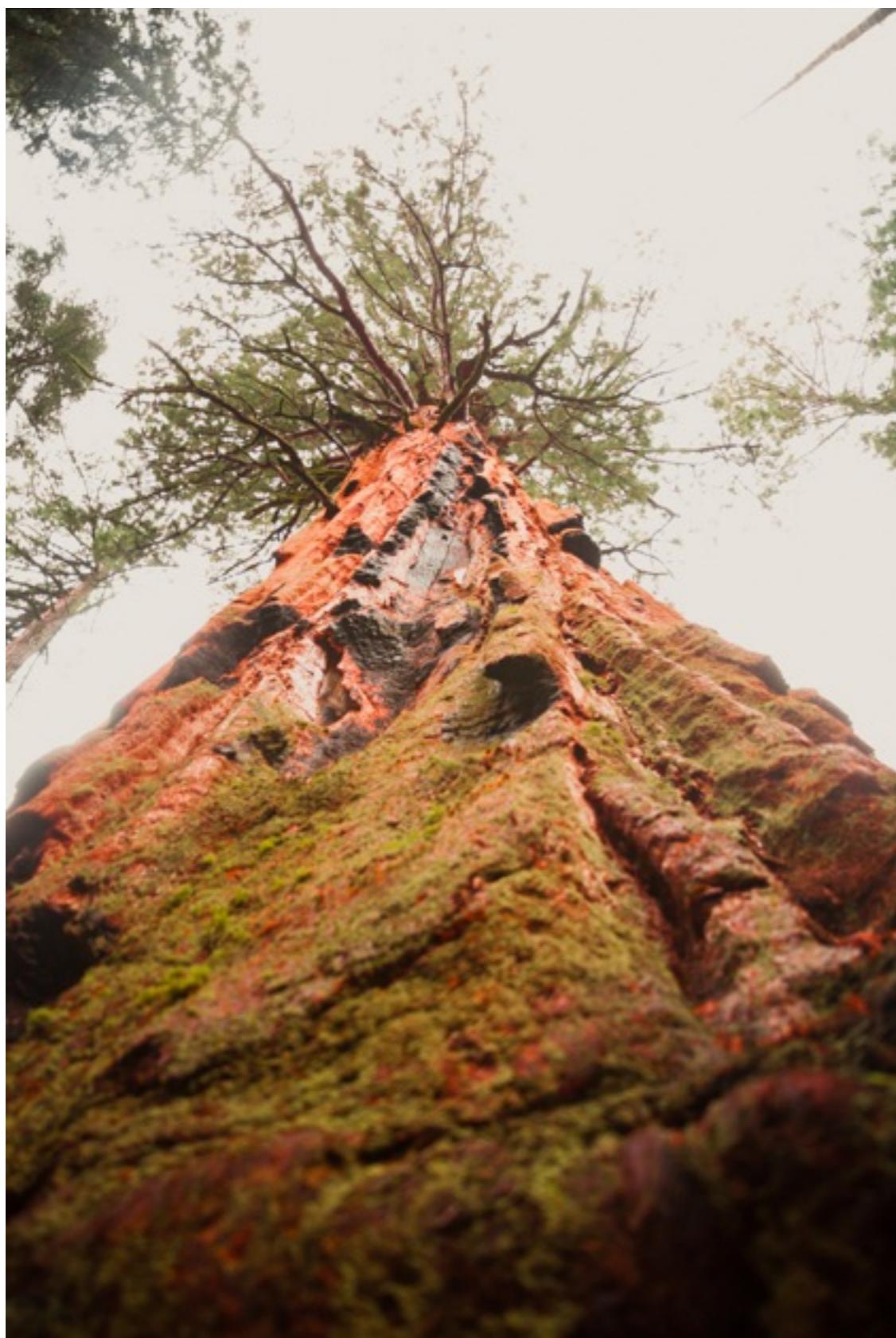














It's called 'solarize'
displaying color...



...and shade



intense low-contrast slide theme by ludwig schubert. based entirely on ethan schoonover's color scheme solarized.

A screenshot of a macOS terminal window. The title bar says "1. ~/myriad (zsh)". The window shows a command-line session:

```
Last login: Tue Nov  5 11:59:07 on ttys000
11:59:22 ~
$ cd myriad
11:59:35 . . . s/ludwig/myriad > ↵ master
$ lsse README.rdoc
zsh: correct lsse to less [nyae]? _
```

Get zsh.