Folks

Contact aggregation for free software

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Berlin, Germany

Motivation

Motivation

- People have a huge number of addresses
  - postal, email, IM, web services, ...

Motivation

- ...and basic attributes
  - avatars, presence, status message, ...

Motivation

- ...and extended attributes
  - photos, videos, wishlists, ...

Motivation

- But these data are poorly integrated

Motivation

- Think: I've got a friend on my contact list
  - How do I email them?
  - How can I find their recent vacation photos?

Motivation

- I've got a friend in my email client
  - How do I start a video call with them?

Goal

Goal

Aggregate a thorough address book from all available contact sources

Non-goal

- Collecting and organizing non-basic data
  - Eg, chat logs, photos, musical interests
  - These should be handled by external software that use Folks as an index
    - Telepathy-logger, Zeitgeist, etc.

Non-goal

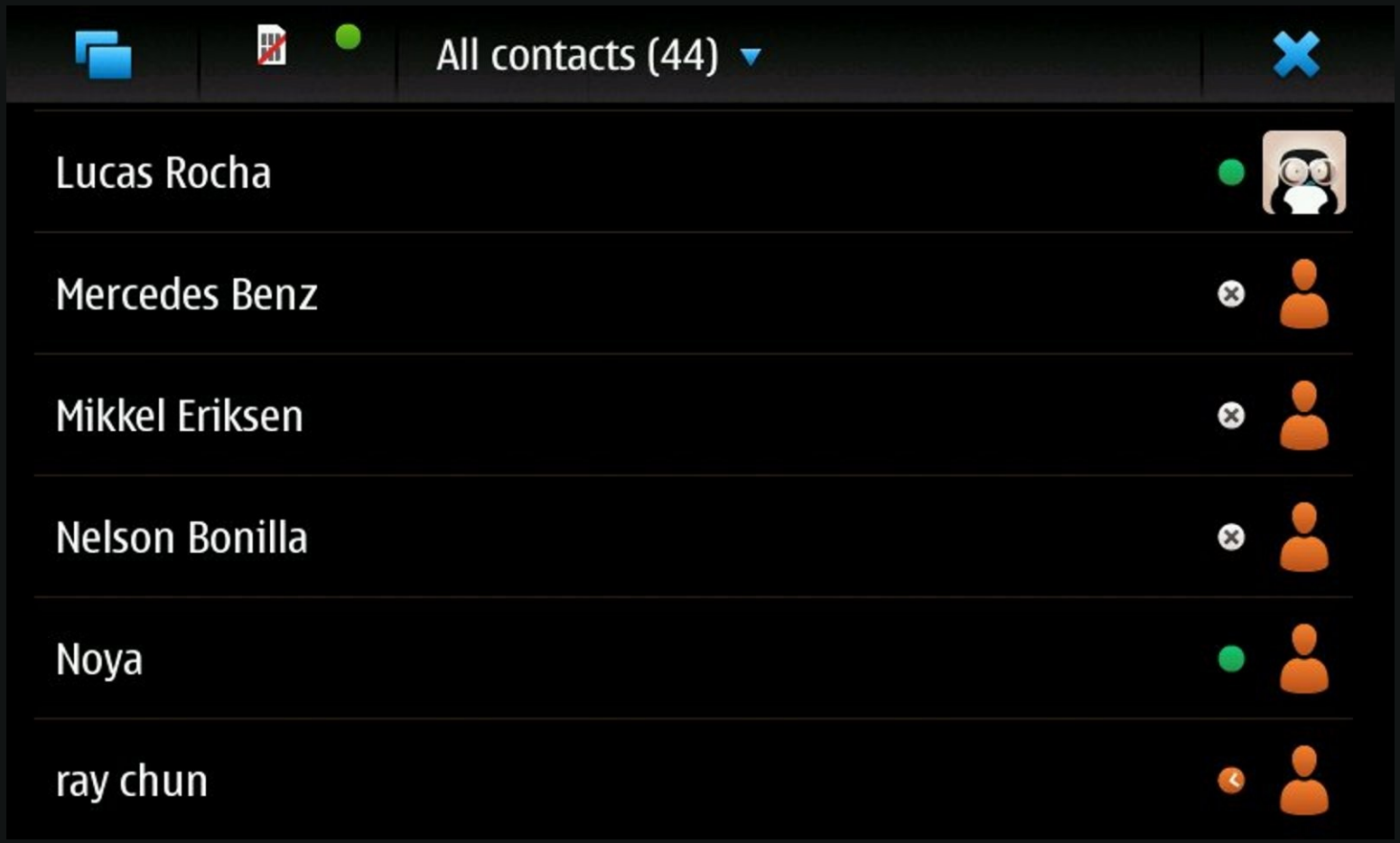
- Be everything to everyone

Prior Work

Prior Work

- Maemo 5 Contacts (N900)
  - Full aggregated address book
  - Supported Telepathy contacts, local store, SIM card contacts
  - Provided a library for other applications

Prior Work



Telepathy

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Prior Work

- Maemo 5 Contacts (N900)
  - Works very well
  - Uses a lot of open components
  - The tricky parts are closed source
  - Maemo 5 is end-of-life'd

Similar Software

Similar Software

- Android Contacts
  - Works very well for storing and linking
  - IM, web service contacts not integrated
    - Talk is a separate app that only shows IM
  - Based tightly on Android / hard to integrate with Gnome and MeeGo

Similar Software

- iOS Contacts
  - Stores contacts, does not support linking
  - IM, web service contacts not integrated
  - Closed source

Summary

Summary

Other solutions don't work:

- IM, web service contacts not integrated
- Meta-contacts not always supported
- Closed source and/or development

The Solution

Folks

Folks

Solving the problems:

- Open source (LGPL v2.1+)
- Designed to aggregate contacts from many types of sources
- Contact linking, not mangling
- Usable from C, Vala, … (any g-i language)

Basic Architecture

Folks

- High-level library: libfolks
  - Defines core objects and interfaces
  - Most implementation is left to the backends

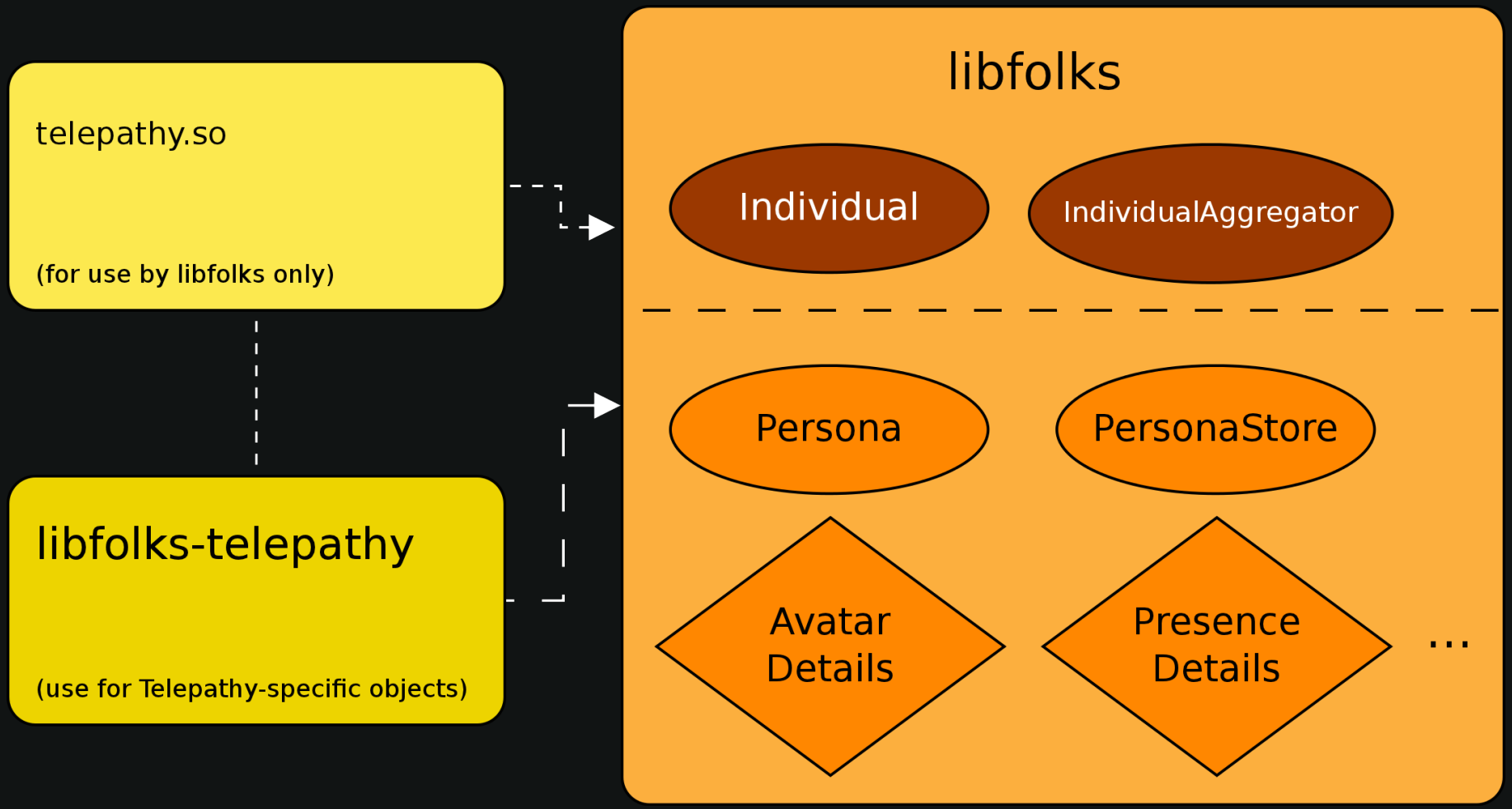
Folks

- Backends are split into a thin GModule
  - Dynamically loaded at run-time

Folks

- ...and support library
  - Lets applications use backend-specific features but keeps the core library simple

Folks



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Folks

- Backends provide a source of Personas

Folks

- Personas have linkable properties
  - Eg, IM usernames like foo@example.org

Folks

- libfolks matches up these Personas into Individuals in the IndividualAggregator

Folks

- Backend 1 has a Persona with email foo@example.org and another with email bar@example.org
- Backend 2 has a Persona with both email addresses

Folks

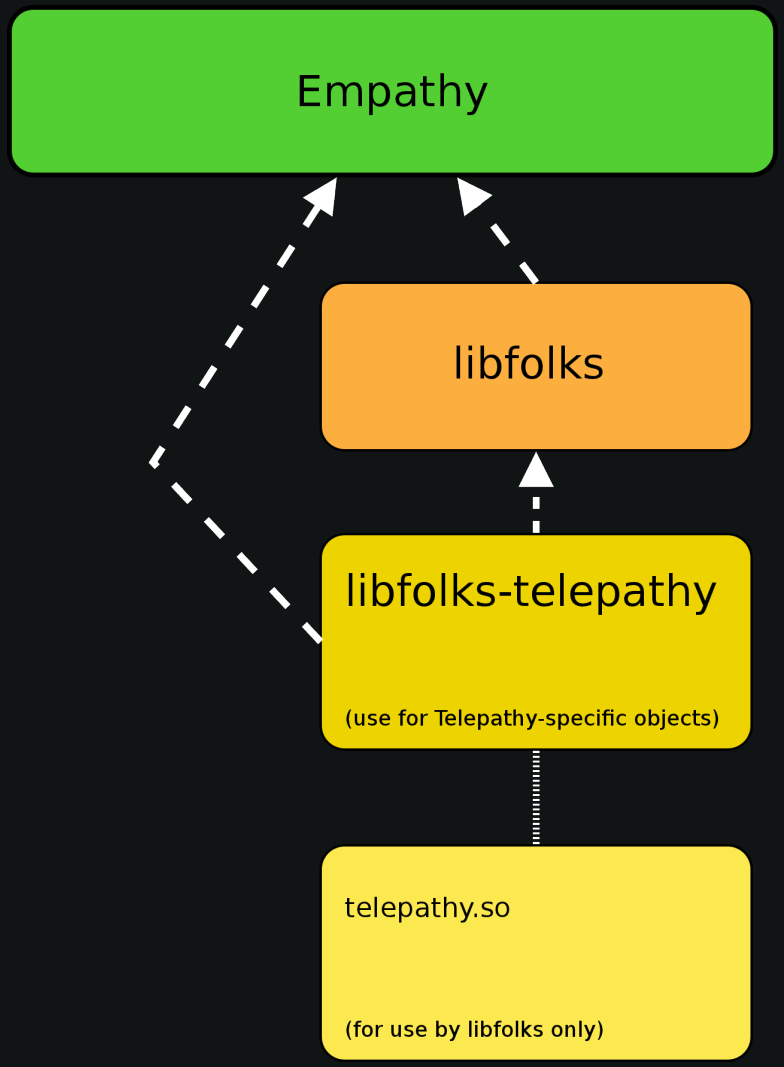
- The IndividualAggregator will see this match and create an Individual from the Personas
  - This will have the union of the properties from all the Personas

Folks

- Properties like alias and avatar are first-come, first-used
- Presence is most-online among its Personas

Using Folks in applications

Folks


Empathy
libfolks
libfolks-telepathy
(use for Telepathy-specific objects)
telepathy.so
(for use by libfolks only)

Backends

Telepathy Backend

Telepathy Backend

- Creates Personas from these services:

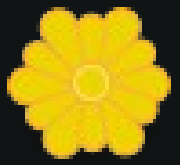
Telepathy Backend

XMPP

SIP

MSN

IRC



ICQ

Sametime

Yahoo

QQ

AIM

Gadu Gadu

Groupwise

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Telepathy Backend

- ...and more
  - Telepathy supports more protocols every day

Telepathy Backend

- Personas contain:
  - Alias
  - Avatar
  - Groups
  - Presence

Telepathy Backend

- Personas can be used for:
  - Text chat
  - Audio/Video chat
  - File transfer
  - Desktop Sharing (VNC)

Evolution Data Server Backend

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EDS Backend

- Local contact store
- Supports all standard address book fields

EDS Backend

- Takes advantage of the standard Gnome address book
- Helps make the transition to Folks easier
- We didn't have to start from scratch!

EDS Backend

- Stores implicit contact links
- Makes meta-contacts (“Individuals”) possible

Libsocialweb Backend

Facebook*

Flickr

Twitter*

Last.FM

More...

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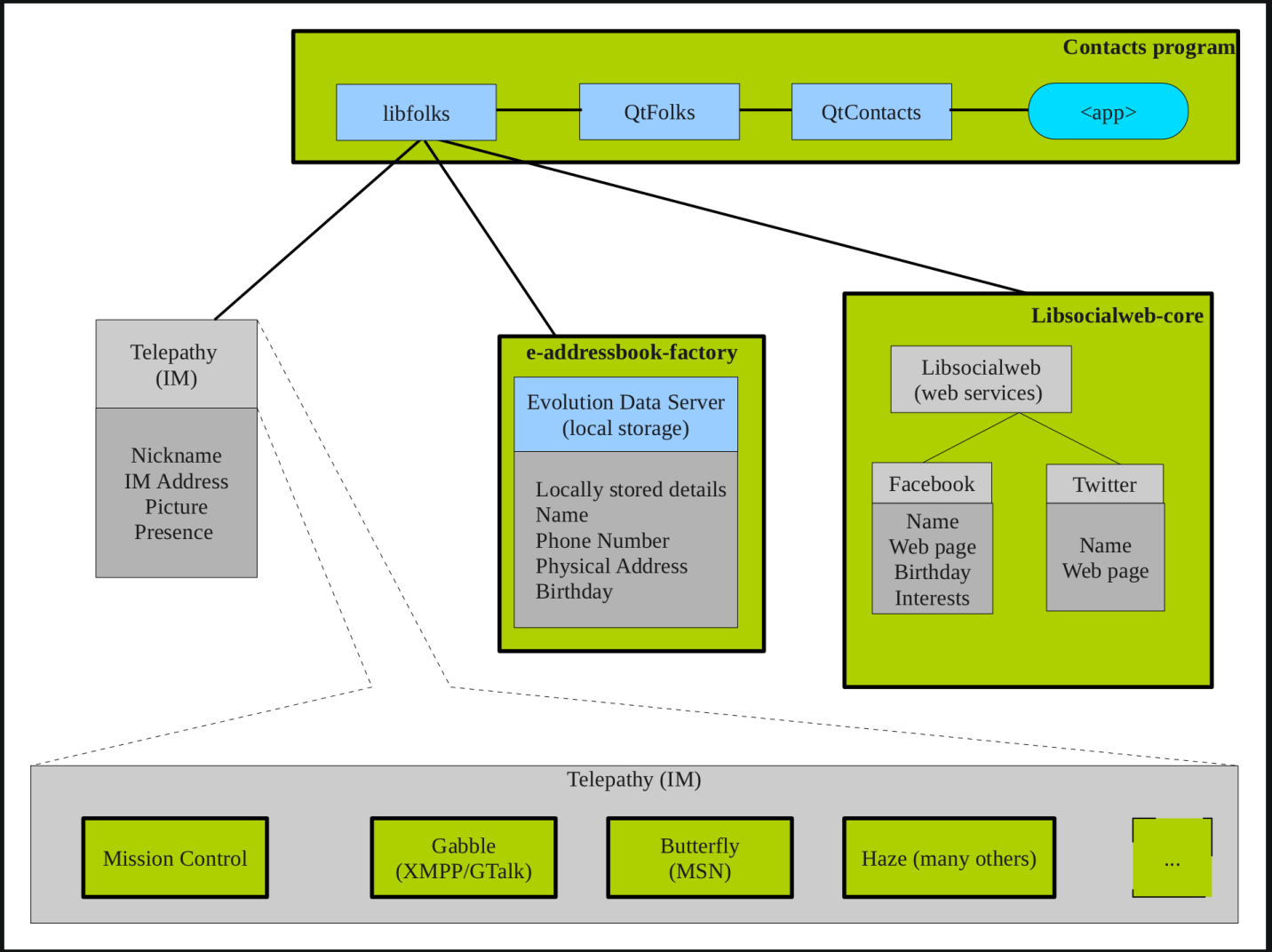
*a note about our cloudy friends

QtFolks

QtFolks

- QtContacts <-> QtFolks <-> Folks
- Brings Folks to any QtContacts-based application (maybe yours!)

QtFolks


Contacts program
libfolks
QtFolks
QtContacts
<app>
Telepathy (IM)
Nickname
IM Address
Picture
Presence
e-addressbook-factory
Evolution Data Server (local storage)
Locally stored details
Name
Phone Number
Physical Address
Birthday
Libsocialweb-core
Libsocialweb (web services)
Facebook
Name
Web page
Birthday
Interests
Twitter
Name
Web page
Telepathy (IM)
Mission Control
Gabble (XMPP/GTalk)
Butterfly (MSN)
Haze (many others)
...

QtContacts

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Who's using Folks?

Empathy,
Gnome's IM client

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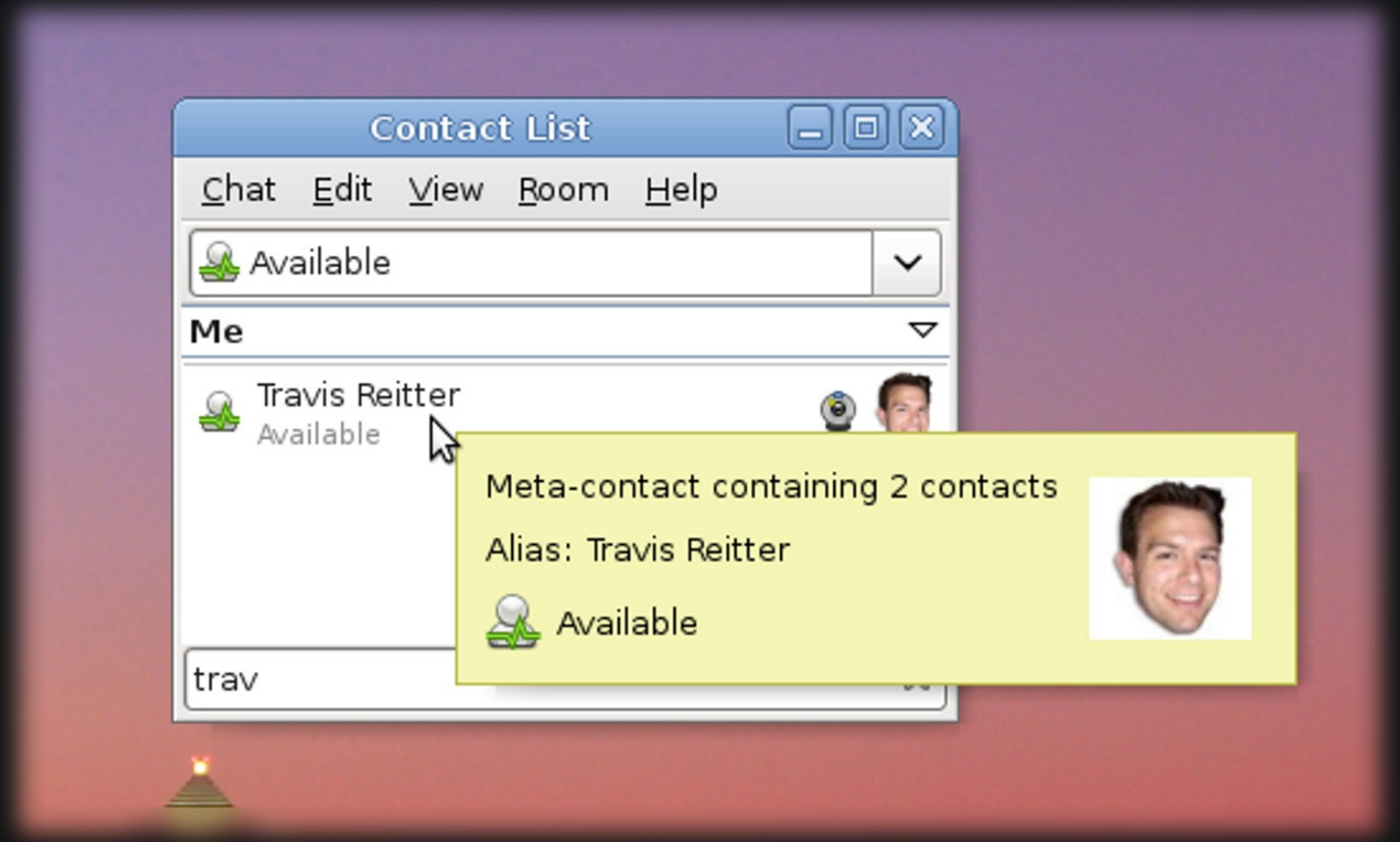
Empathy



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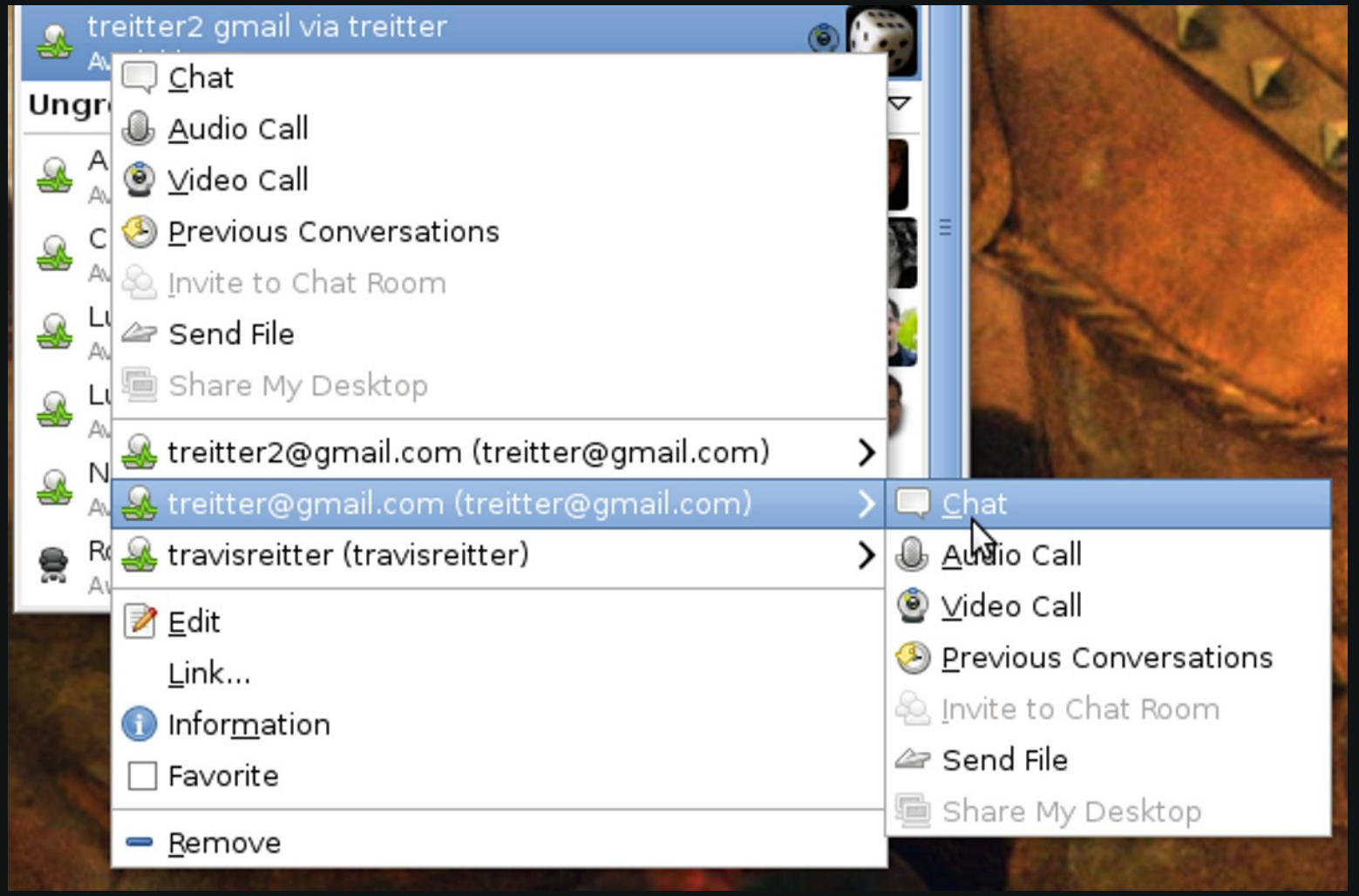
Empathy

- Uses Folks for meta-contacts
  - Allows actions from any valid

    (source account, destination contact) combo

Empathy



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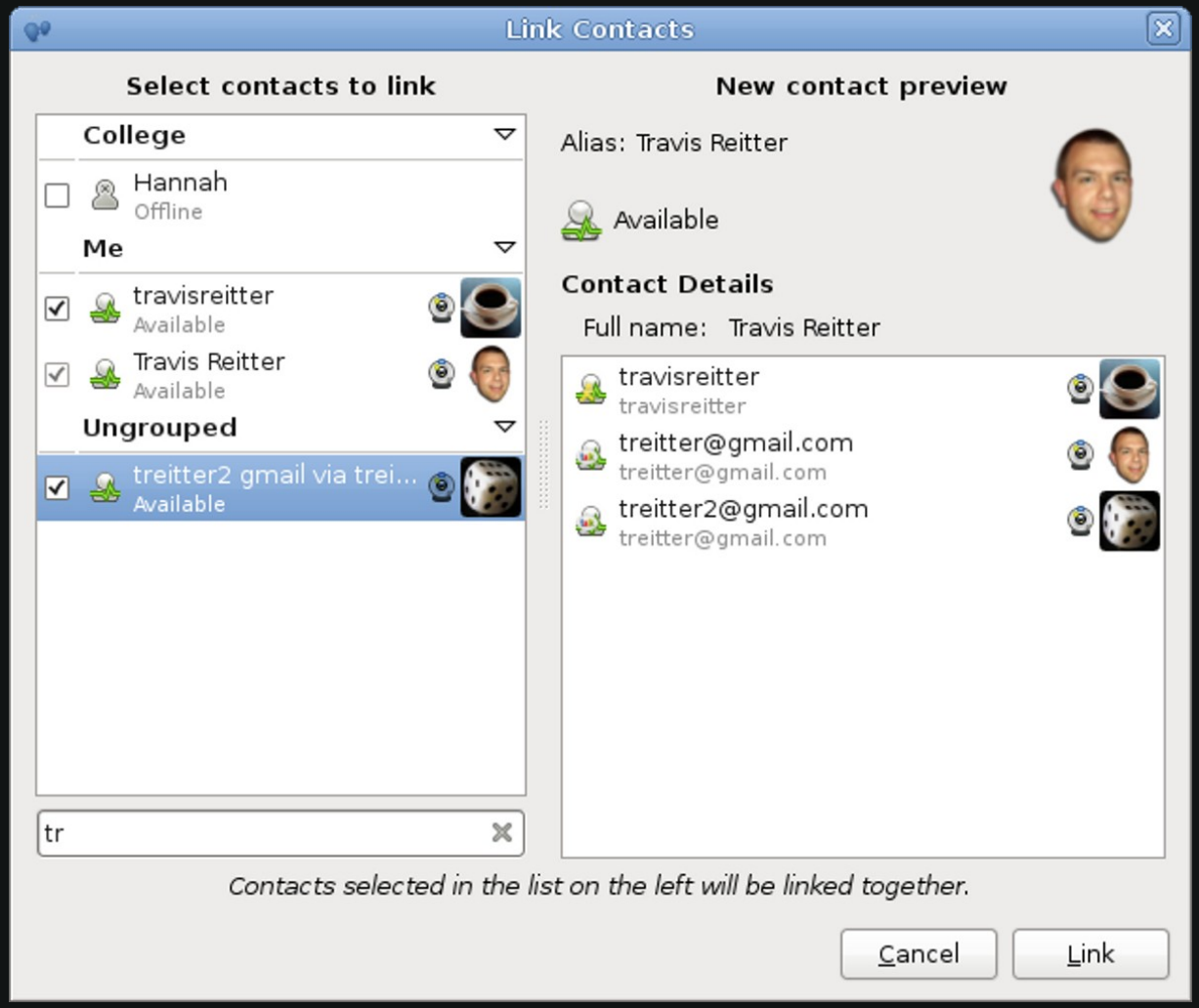
Empathy

- Provides UI for linking contacts

Empathy



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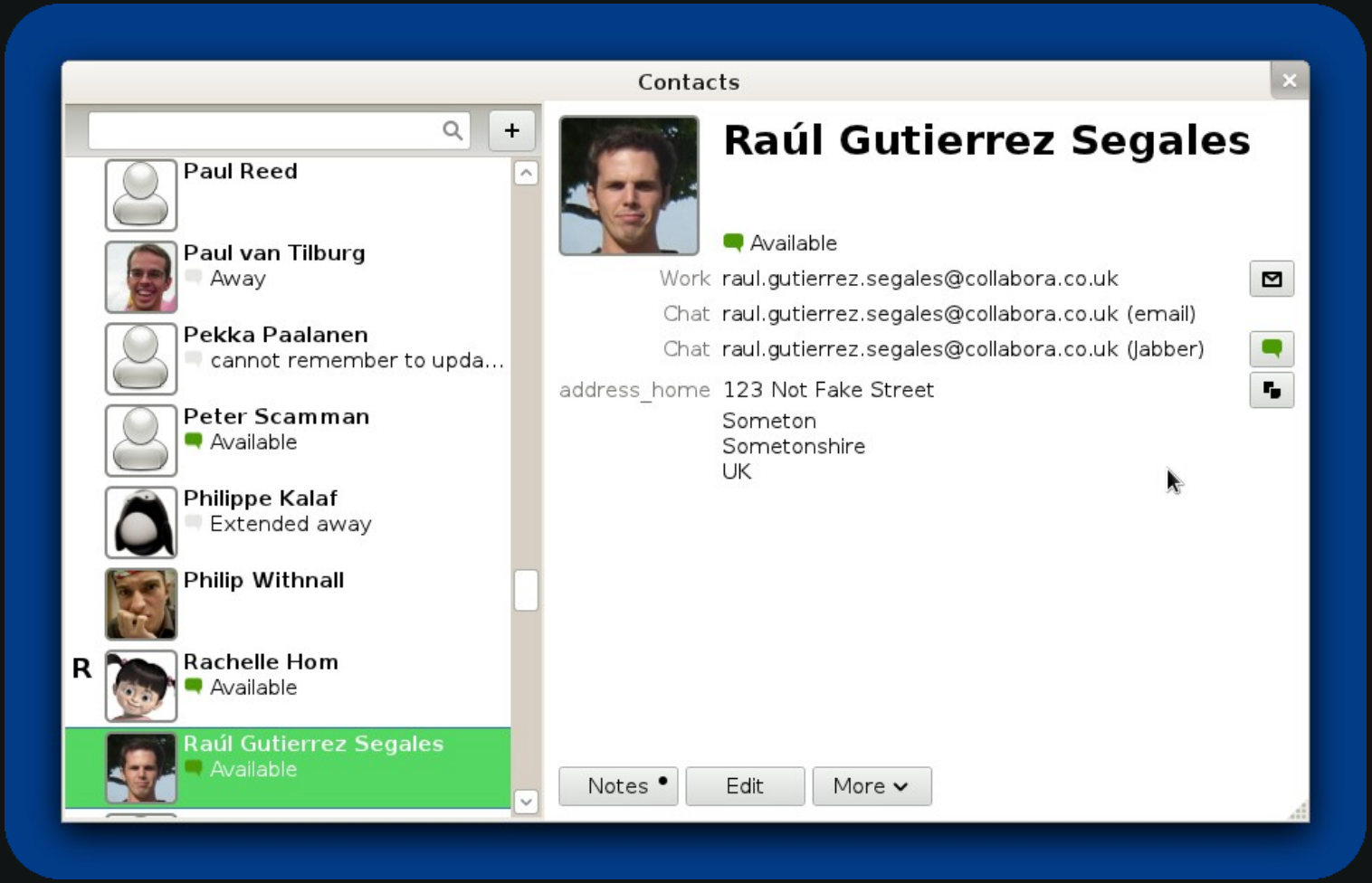
Gnome Contacts

Gnome Contacts

- Streamlined address book built on Folks
- Part of Gnome 3.2's Contacts feature

Gnome Contacts



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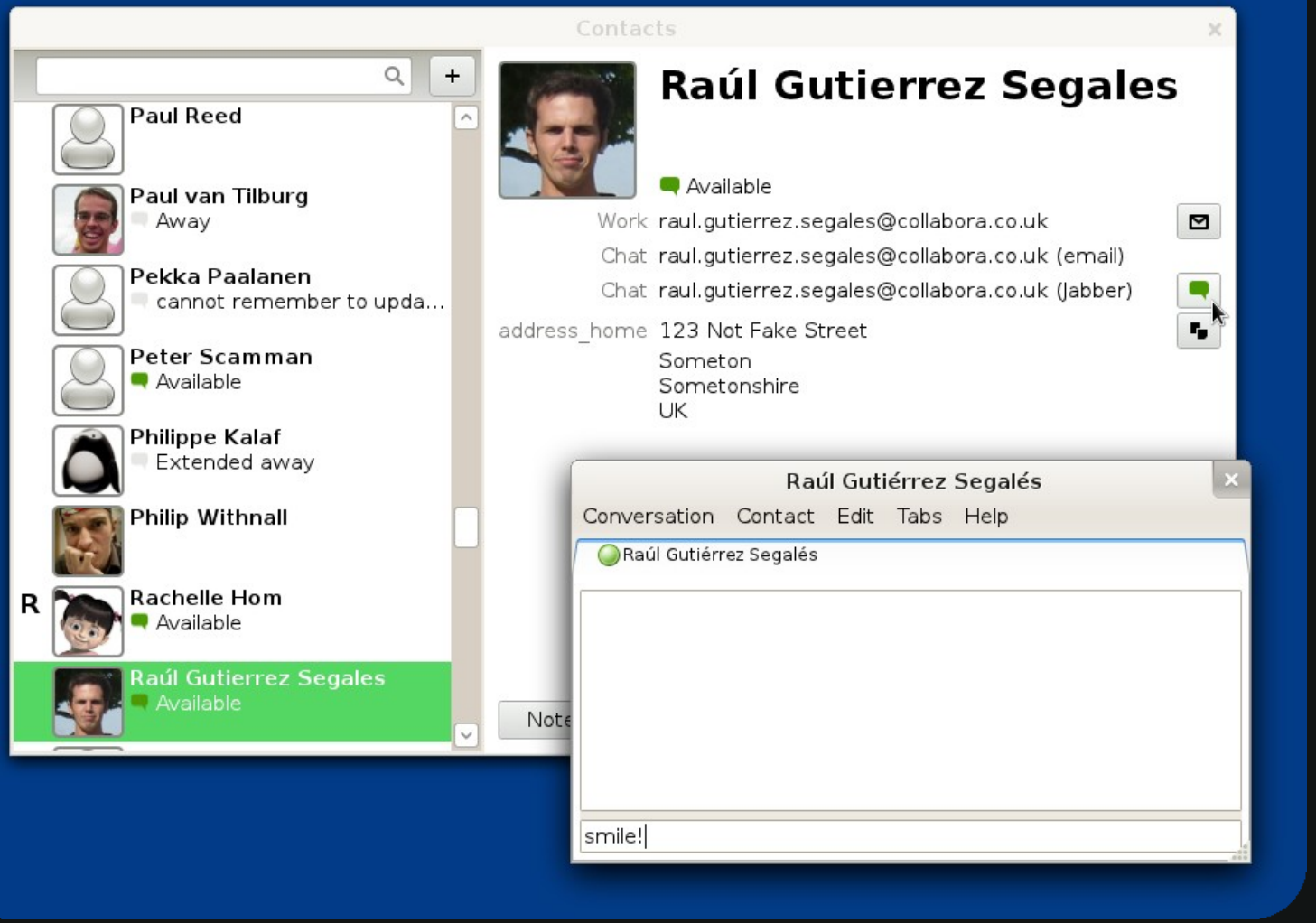
Gnome Contacts



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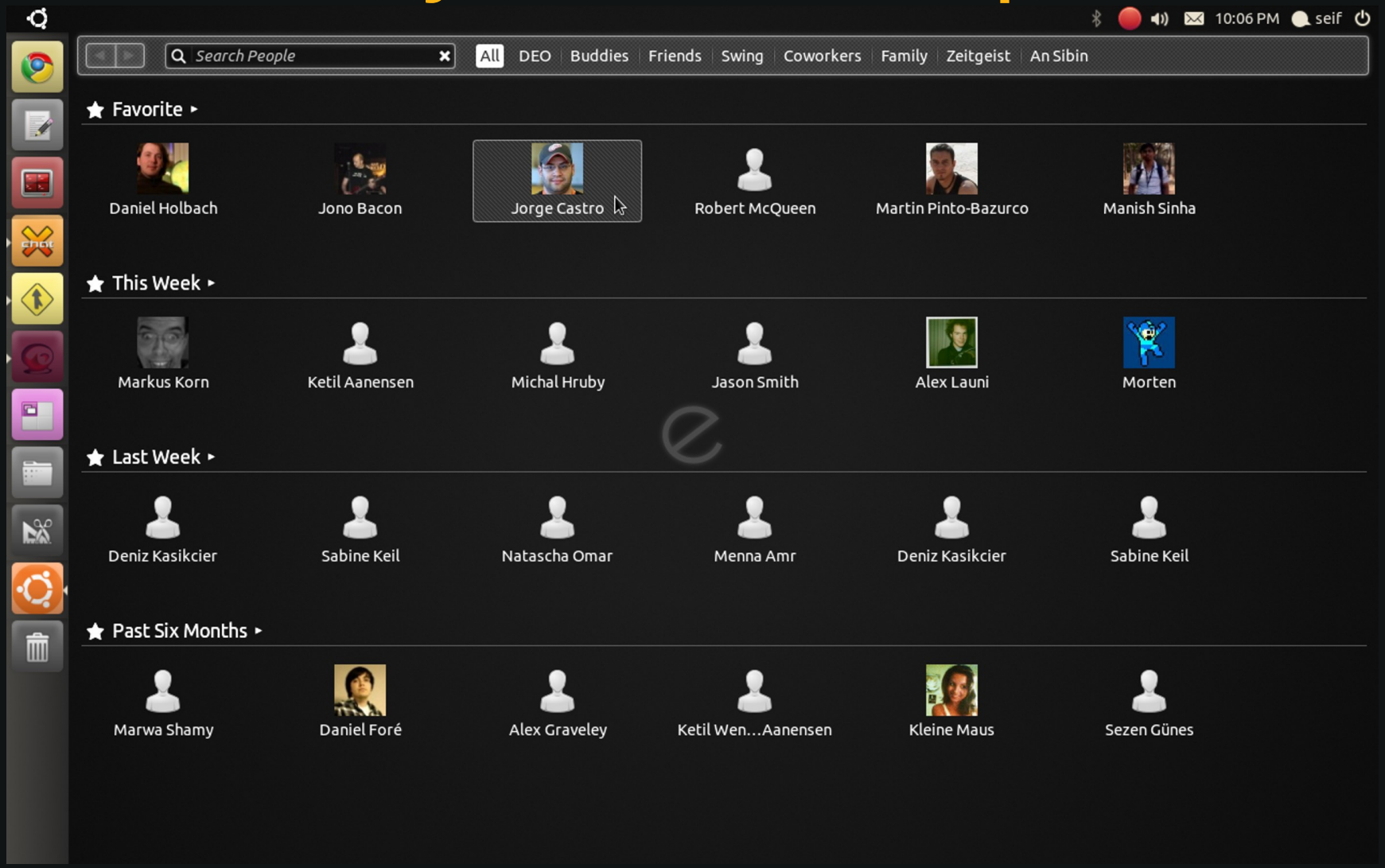
Unity Place: People



http://seilo.geekyogre.com/2010/11/unity-place-people-day-3/

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Flying Cars

~~Flying Cars~~

The Future

The Future

- Simpler contact linking
  - As automated as is safe
  - Fancy heuristics

MeeGo

MeeGo

- Will use Folks (through QtFolks) for its address book
- Working with us upstream for everyone's benefit

MeeGo

- Sponsored initial development of:
  - QtFolks
  - Libsocialweb backend
  - Tracker backend

The Future

- Gnome Shell integration
  - Search plugin
  - Chat with someone in just a few keystrokes
  - Summer of Code project by Morten Mjelva

The Future

- Filtering
  - Efficiently retrieve a subset of Individuals based on a search string
  - Think: type-ahead for emails

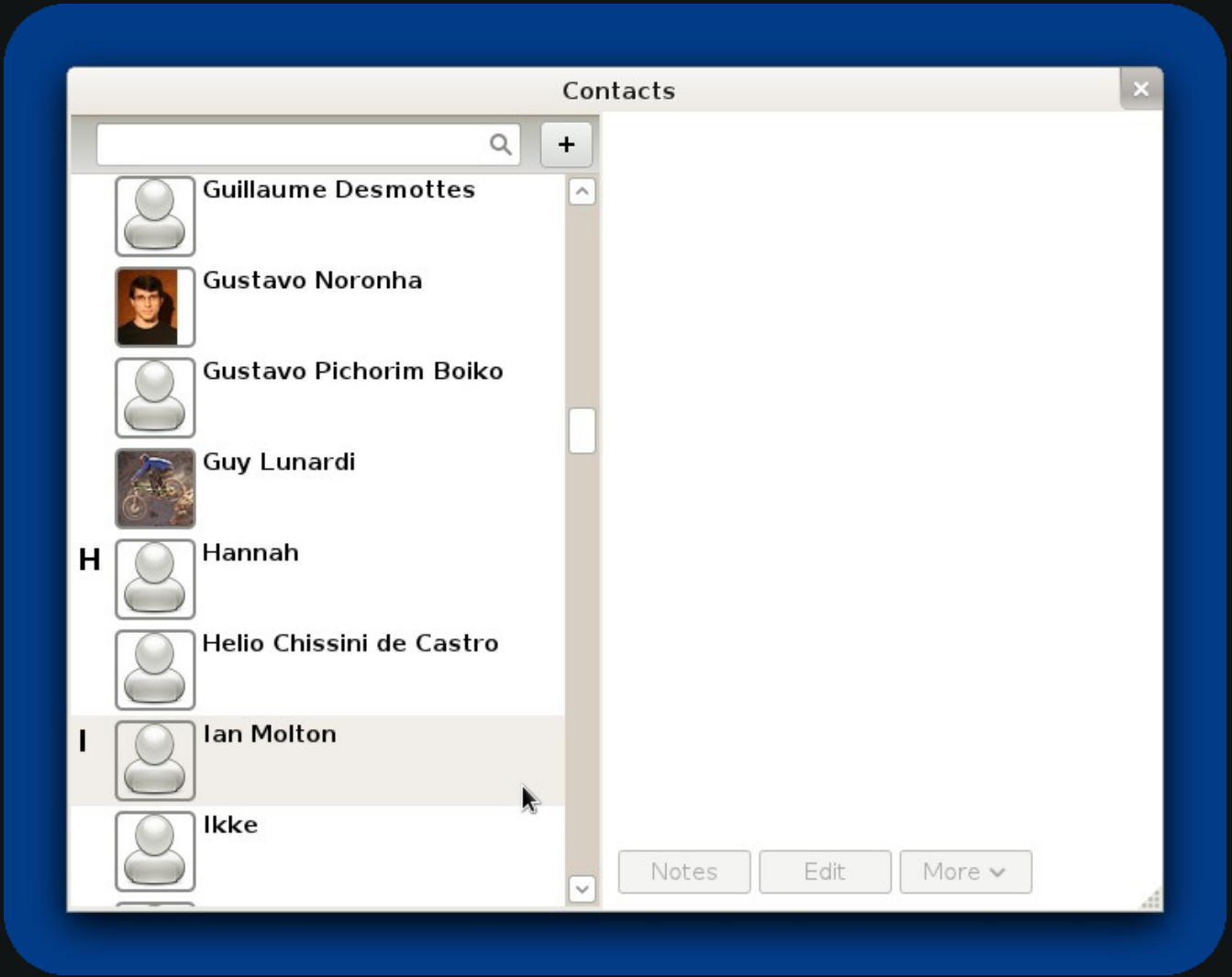
The Future

- Search-only backends
  - Massive LDAP stores
  - Facebook/Google+ “unfriended” contacts

The Future

- Performance work
  - Current performance is OK, but not optimized

The Present



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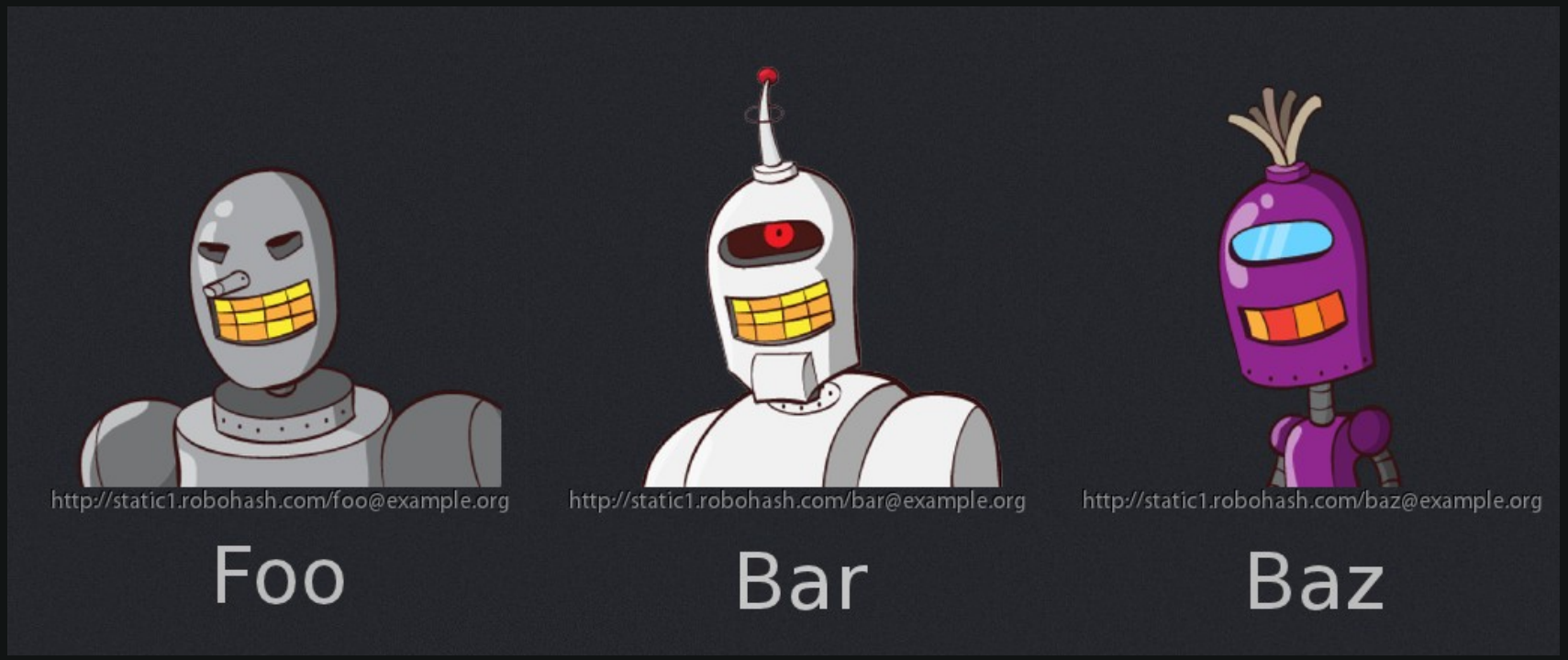
The Future?

- Fill in the gaps with simple backends
  - Gravatar for avatars
    - Stores an avatar for an email address

The Future?

- Robohash to generate unique avatars



The Future

- Dummy backend
  - Will make client testing much easier

The Future

Your ideas here!

Get Involved

- http://telepathy.freedesktop.org/wiki/Folks
- #telepathy on FreeNode
- Telepathy mailing list
- Folks: Gnome git and bugzilla: 'folks'
- QtFolks: MeeGo Gitorious and bugzilla