



BASI DI DATI II – 2 modulo

Parte X: Introduzione al Web Semantico

Based on a tutorial of Ivan Herman, W3C

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Outline

- Introduction
- The Web of Data
- Semantic Web
- Technologies

Using the Web

Let's organize a trip to Budapest using the Web!

- First: you try to find a proper flight with ...

... a big, reputable airline, or ...

The screenshot shows the Alitalia website homepage in a Firefox browser window. The browser's address bar displays the URL http://www.alitalia.com/IT_IT/home/index.aspx. The website features the Alitalia logo at the top left, with the tagline "STREAM" and the slogan "Seguici su" followed by social media icons for Facebook, Twitter, and LinkedIn. A navigation menu includes "OFFERTE SPECIALI", "E-SERVICES", "VIAGGIARE", "MILLEMIGLIA", "AZIENDE", "CHI SIAMO", and "other countries". A search bar is located below the navigation menu, with fields for "Codice" and "PIN", and an "ACCEDE" button. A "Ritornami su questo computer" checkbox and a "Trova il PIN" link are also present.

The main content area is divided into several sections:

- VOLO LE MIE PRENOTAZIONI WEB CHECK IN VOLO + HOTEL**: A search form for flights. It includes options for "Andata e ritorno" (selected) or "Solo andata". The search criteria are: "Da: Roma, Italia" (Cerca Aeroporto), "A: Budapest, Ferihegy 2, Ur" (Cerca Aeroporto), "Data Partenza: 25/05/2011", and "Data Ritorno: 26/05/2011". There are checkboxes for "Date flessibili (+/- 3 giorni)" and "Voli Diretti". The search criteria are set to "Prezzo" and "Orario", with "Classica/Economy" selected for the class. The number of passengers is set to 1 Adult, 0 Children (2-11 anni), and 0 Children (0-23 mesi). A "CERCA" button is at the bottom right of the search form.
- ACQUISTA FINO AL 24 MAGGIO 2011**: A promotional banner for a new flight route: "NUOVO VOLO ROMA - RIO DE JANEIRO da 599€ ANDATA E RITORNO TUTTO INCLUSO". The price is displayed in a large green box, and the text "PREZZO DA TUTTA ITALIA" is also visible.
- DOVE VUOI ANDARE**: A section with three numbered steps: "1 DOVE VUOI ANDARE", "2 ORGANIZZA LA PARTENZA", and "3 VIVI IL TUO VIAGGIO". Below this are four destination cards: "ROMA - IBIZA" (da 149€ A/R TUTTO INCLUSO), "ROMA - PECHINO" (da 399€ A/R TUTTO INCLUSO), "TRIESTE - LAMEZIA TERME" (da 39€ Solo andata TUTTO INCLUSO), and "TRIESTE - CATANIA" (da 39€ Solo andata TUTTO INCLUSO).
- ROMAMILANO**: A section titled "SCOPRI I NUOVI SERVIZI" with a "Prenota ora" button and sub-buttons for "Parti da Roma" and "Parti da Milano".
- STATO DEL VOLO** and **ORARIO**: Sections for checking flight status and schedules. The "STATO DEL VOLO" section includes a "STATO DEL VOLO" button.
- ALTRI SERVIZI**: A section for other services, including "Assicurazioni di viaggio".
- NEWS**: A section with a date "21/04/2011" and the headline "Nuovi voli per Malaga e Valencia".
- NEWSLETTER DELLE OFFERTE**: A section for signing up for offers, with a text input field and an "INVIA" button.
- CONTATTI**: A section with the phone number "06 2222" and the text "un filo diretto con noi, pratico ed efficiente".
- Feedback**: A section with a "[+] Feedback" button.

The bottom of the page shows a system tray with the date "Adesso: 19 °C", "Oggi: 25 °C", and "Sab: 26 °C".

... the airline of the target country, or ...

The screenshot displays the Malev website interface. At the top, the browser shows the URL <http://www.malev.com/> and the language is set to 'magyar'. The navigation menu includes 'Online services', 'Package offers', 'Travel information', and 'Duna Club'. The main content area features a flight booking form on the left with fields for 'From' (Rome, Italy), 'To' (Budapest, Hungary), and dates (2011-05-20 to 2011-05-27). A large promotional banner on the right reads 'ENJOY OUR COLOURFUL OFFERS' and 'EXCITING DESTINATIONS from HUF 26 600*'. Below the banner are links for 'Summer deals', 'Last minute offers', 'Scheduled minibus services', and 'Seaside offers'. The bottom section includes 'Online check-in', 'Where we fly', 'Latest offers', and 'Latest Tweets'. A 'Quicklinks' sidebar lists services like 'Timetable', 'Travel Planner', and 'Flight status'. The footer contains contact information and social media links for Facebook, Twitter, and a Newsletter.

Firefox | Great flights, low fares - Malév Hungaria... | flickr | magyar | Country: Hungary

MALEV | oneworld | Online services | Package offers | Travel information | Duna Club

✈ Flight | 🏨 Hotels | 🚗 Car rental

Booking language: [English] [Hungarian] [Italian] [Spanish]

From >> Rome (ROM), Italy | To >> Budapest (BUD), Hungary

Depart: 2011-05-20 | Return: 2011-05-27

Adults (12+): 1 | Children (2-11): 0 | Infants (0-2): 0

My dates are flexible (+/- 3 days) | Show business fares only

VISA | Mastercard | Diners Club | American Express | **Start booking**

I have a promo code

ENJOY OUR COLOURFUL OFFERS

EXCITING DESTINATIONS

from **HUF 26 600***

*Full return fare | *DETAILS>>

Summer deals | Last minute offers | Scheduled minibus services | Seaside offers

Barcelona from HUF 39,900

Discover your destination of choice with our **Travel planner**

Search for a flight now!

Barcelona | Paris | London | Rome

Quicklinks

- Timetable
- Travel Planner
- Flight status
- Check my trip
- Change booking
- Budapest transfer
- Group booking
- Traveling with children

Online check-in: Avoid the queues and check in for your flight online!

Where we fly: Plan your flight in advance and find out where we fly. Visit our routemap!

Latest offers: Check out our latest offers and discounts, book your low fare flight today!

Latest Tweets: Bourgas (BOJ): 3 x a week from 18 June! Departures to BOJ: 12:55 (Tue/Sat) & 23:15 (Sat). Departures to BUD: 16:10 (Tue/Sat) & 05:40 (Sun).

Contact us | Frequently Asked Questions | Company Information | Press Room | Conditions of carriage | Malév Air Cargo | Malév Ground Handling | oneworld | Sitemap

Facebook | Twitter | Newsletter

Adesso: 19 °C | Oggi: 25 °C | Sab: 26 °C

... or a low cost one

RYANAIR Contatti Info, sui voli Tariffe e supplementi Condizioni generali Italia (Italiano)

PAGINA INIZIALE NOLEGGIO AUTO ASSICURAZIONE HOTEL TRANSFER DA/PER L'AEROPORTO PARTNER DI VIAGGIO MAPPA LA MIA PRENOTAZIONE

12€

TARIFFA DI SOLO ANDATA, A PARTIRE DA. PRENOTA ENTRO LA MEZZANOTTE DI LUNEDI, VIAGGIA A LUGLIO, TERMINI E CONDIZIONI.

Voli Hotel Hertz

Ritorno Sola andata Date flessibili

Roma (Ciampino) Data

Destinazione Data

Ho letto e accettato le condizioni di utilizzo di Ryanair.com

Adulti: 1 Bambini <16: 0 Neonati <2: 0 **Prenota**

Check-in Online

Noleggio Auto

Sconti fino al **-15%** Hertz

Hotel economici

Ostelli

Voucher regalo

Il roaming

Affitto Vacanza

Treno per Stansted

Crociere

Camping & Village

Gioca a golf!

Novità Chiusura dell'aeroporto di Treviso dal 1 giugno al 30 settembre 2011

Voli low cost	City Break	Vacanze Estive	Offerte speciali
Altre destinazioni »			
Voli low cost			
Pisa -	€	Trapani -	€
Alicante	12	Cagliari	12
Constanta	12	Girona (Barcelona)	12
Alghero	18	Malta	12
Bari	18	Ancona	18
Brindisi	18	Bari	18

Voli low cost dall'Italia Le tariffe non includono i supplementi facoltativi

Offerte speciali

Ryanair GolfDirect
Golf per tutti!
Sconti fino al 50% sulle green fee

Alberghi
Migliore tariffa garantita. Prenota ora!

Sei in partenza? Ti serve un'auto?
Dai un'occhiata alle nostre offerte last minute per noleggiare un'auto Hertz!

Ryanair Travel Insurance
Se amate viaggiare sarete interessati alla polizza assicurativa di Ryanair Travel Insurance che...

Accesso scontato fino al 50%
Prezzo trasparente senza spese aggiuntive e costi di prenotazione!

Vai in vacanza tranquillo...
Clicca qui per un'assicurazione di **VIAGGIO ECONOMICA**

Adesso: 19 °C Oggi: 25 °C Sab: 26 °C

Using the Web

Let's organize a trip to Budapest using the Web!

- First: you try to find a proper flight with ...
- Second: you have to find a hotel, so you look for...

... a really cheap accommodation, or ...

The screenshot shows the Hostel Traveler.com website. The browser address bar displays "http://www.hosteltraveler.com/". The website header includes the logo "Hostel Traveler.com", a search bar for "Search Hostel Rates", and a "Login" button. Below the header is a search form with the following details: "Book hostels in: Hungary", "Budapest", "Arrival: May 21, 2011", "Nights: 2", "Guests: 2", "Rooms/Units: 1", and a "Find Hostels" button. A globe icon is positioned to the right of the search form. Below the search form, there are currency icons (Euro, Dollar, Pound) and a guarantee statement: "We are the cheapest for hostels! We guarantee it!". To the right of this statement, there are two checkmarks: "Lowest prices guaranteed" and "Find a lower price, and we refund double the difference". Below the guarantee statement, there is a "Popular cities" list: Taim Sha Tau, Florence, Lisbon, Rio de Janeiro, Milan, Waikiki, Ann Arbor, Fort Lauderdale, Miami Beach. A world map is centered on the page, with regions labeled: North America, South America, Caribbean, Europe, Africa, Middle East, Asia, and Australia. To the right of the map is a "#1 Search for Hostels" badge with a blue ribbon and a "1" inside, with the text: "Now twice as many hostels not found on other hostel search sites. Book hostels around the world. Popular Hostels Best Hostels Cheapest Hostels". Below the map, there are two sections: "Book Hostels in" with a list of regions (Africa, Asia, British Isles, Canada, Caribbean, Europe, Middle East, North America, Oceania, Other, South America, United States) and "Most Popular Countries & Regions to Visit" with a list of countries and regions (Italy, Spain, Hong Kong, Turkey, Brazil, Netherlands, Portugal, Mexico, Croatia, China, Brazil, Mexico, Peru, Colombia, Ontario, Argentina, New York, Ecuador, Chile, California). On the left side of the page, there is a sidebar with "Hostel Traveler IS" logo, a description "Secure online hostel booking at worldwide youth hostels, backpackers, and budget hotels.", and several buttons: "My Hostel Travel", "Popular Hostels", "Best Hostels", "Cheapest Hostels", "Work with us", and "About this site". Below the sidebar, there is a "hot deals" section for "Manuel Antonio Costa Rica" with a photo of a person on a zipline and the price "from \$12.00 / person". At the bottom of the page, there is a "Bio" section with three blog links: "Intelligent Travel Blog", "Hostel Marketing Experts Blog", and "Intelligence for B&Bs Blog". To the right of the bio section is a "Hostel Traveler" section with a photo of a woman and the text "Now for Travelers: More great ways to book - Secure, fast, easy How it works". The browser's status bar at the bottom shows the date and time, and weather information: "Adesso: 19 °C", "Oggi: 25 °C", "Sab: 26 °C".

... or a really luxurious one, or ...

The screenshot shows the Hilton website interface in a Firefox browser window. The address bar displays http://www1.hilton.com/en_US/hi/index.do. The page features the Hilton logo and a navigation menu with items like "Specials & Packages", "Reservations", "Meetings", "Social Gatherings", "Hilton HHonors", "Travel Guides", "Destinations", and "My Favorite Hotels".

The main content area is divided into several sections:

- Find a Hotel:** A search form with fields for "City" (filled with "budapest"), "State/Province", "Check-In" (20 May 2011), "Check-Out" (21 May 2011), and "Guest Rooms" (1-4). It includes a "Find It" button and a "More Search Options..." link.
- Reward Stays:** A section for users with Hilton HHonors.
- My Reservations:** A section for managing existing bookings.
- HILTON RESORTS:** A promotional banner for "HILTON RESORTS" with the text "FIND YOUR DREAM VACATION DESTINATION WITH OVER 70 RESORTS IN 26 COUNTRIES" and an "EXPLORE NOW" button. The background image shows a tropical resort scene.
- News & Updates:** A section with a Facebook link and a "Points & Miles & No Blackout Dates" promotion.
- Discover a World of Possibilities:** A section with links for "Explore More Than 530 Hotels & Resorts", "Shop by Destination", "Advance Purchase Rate", "Connect with Hilton", "Facebook & Twitter", "iPhone App", and "Weekly Newsletter".

The footer contains logos for various Hilton brands (Waldorf Astoria, Conrad, Hilton, DoubleTree, Embassy Suites, Garden Inn, Hampton, Home2 Suites, Home2, Hilton Grand Vacations) and the "HHONORS HILTON WORLDWIDE" logo. It also includes links for "About Hilton", "Site Map", "View Text Only", "Customer Support", "1-800-HILTONS", "Hilton Worldwide", "Careers", "Franchise Development", "Press & Media", "Privacy Policy", "Site Usage Agreement", and "©2011 Hilton Worldwide".

At the bottom of the browser window, the system tray shows the date and time as "Sab: 26 °C" and "Oggi: 25 °C", along with other system icons.

... an intermediate one ...

Firefox | Airport Hotel Budapest**** | Budapest
http://www.travelsinhungary.hu/varosi-szallodak/budapest/airport-hotel-budapest.html


SZÁLLÁSOK WELLNESS VÍZPART HEGYVIDÉK VÁROSI HOTELEK GYÓGYFÜRDŐ KASTÉLYOK

Travels In Hungary - Mert Utazni Jól

Keresés...

AIRPORT HOTEL BUDAPEST****

PDI



2220 Vecsés, Lőrinci u. 130/a
„Ferihegyi repülőtéri szálloda és konferencia központ”



Szállodáról:
Az **Airport Hotel Budapest****** Vecsés legszebb részén, a Ferihegyi Reptér termináljaitól, valamint az M0-ás autópálya vecsési leágazójától 2,5 km-re, az Airport Business Parkkal szemben található, mindössze 20 percre Budapest központjától. Ideális helyszín a nyugalmat, tiszta levegőt keresők számára.

Térkép **Látás**

A szálloda **112 szobás**, összesen 224 fő befogadására alkalmas.
103 db **Deluxe Kétágyas szoba**,
4 db **Junior Suite**,
3 db **Lakosztály**,
2 db **Mozgáskönnyített szoba**.

A szálloda **non-stop éttermében** alkalom nyílik gyors üzleti ebédek; elegáns vacsorák vagy akár csoportok étkeztetésének lebonyolítására egyaránt. A kiváló hazai és nemzetközi ételek elkészítéséről nemzetközileg elismert Chefünk gondoskodik.

Képgaléria:



Szolgáltatások:
- Étterem

Adesso: 19 °C Oggi: 25 °C Sab: 26 °C

Using the Web

Let's organize a trip to Budapest using the Web!

- First: you try to find a proper flight with ...
- Second: you have to find a hotel, so you look for...
 - oops, that is no good, the page is in Hungarian that almost nobody understands, but...

... this one could work

Firefox | Bestwestern.com, the World's Largest H... | http://book.bestwestern.com/bestwestern/selectHotel.do

View Text Only | Customer Service | Find a Hotel | Gift Card

My Profile | Email or Member: | Password: | SIGN-IN | Forgot Password | Create Password | Enroll Now

HOME | REWARDS | CHECK RESERVATIONS | TRIP PLANNER | SPECIAL OFFERS | PACKAGES

Hotel Search Results | Select Occupancy | Select Room | Review & Reserve | Confirmation

Find a Hotel - Select Hotel

Modify Your Search: 5 Hotels Found within 50 Mi / 80 Km of the Budapest Area

City: Budapest | State or Province: All | Country: Hungary | Check-In: 05/20/2011 | Check-Out: 05/21/2011 | Search Again

Search Using Points: | Hotel Selection: Best Western, Best Western Plus, Best Western Premier | Features & Amenities: High Speed Internet, Complimentary Breakfast, Pool, Airport Shuttle, Fitness Center, Restaurant Onsite, Hot Tub, Pets Allowed, Room Service, Eco-Friendly | Search Again

Show: All Hotels | By: Distance | Display Currency In: | Hide Map

1. BEST WESTERN Hotel Hungaria

Rates From: €82.00* (EUR)

[Check Availability](#) | [View Packages at this hotel](#)

Stay at this 4-star Budapest hotel offering guests deluxe accommodations near some of Budapest's popular attractions and business locations. Visitors... [More >](#)

[Photo Gallery](#) | [Compare this Hotel](#) | [Pet Policy](#)

Rákoczi Ut 90,
Budapest, H-1074, Hungary
Distance from City Center: 0.86m / 1.38km

Adesso: 19 °C | Oggi: 25 °C | Sab: 26 °C

Using the Web

Let's organize a trip to Budapest using the Web!

- First: you try to find a proper flight with ...
- Second: you have to find a hotel, so you look for...
 - Of course, you could decide to trust a specialized site...

... like this one, or...

Firefox - Booking.com: Riccardo Torlone: Hotel B...
 http://www.booking.com/searchresults.html?label=gog235j;sid=3a85c996715b9971e6d9c5a23d20c6fa;checkin_monthday=20;checkin_year_mont... best western

BOOKING.COM
prenotazioni alberghiere online

Benvenuto/a Riccardo Torlone. (Non sei Riccardo?) | Il Mio Profilo | La Mia Prenotazione

home > ungheria > margitsziget island > budapest
 943 hotel 334 hotel 334 hotel

Cerca hotel
 Dove? Budapest
 Distanza: 1 km
 Data check-in: Ven 20 Maggio '11
 Data check-out: Sab 21 Maggio '11
 Non ho ancora deciso le date del mio soggiorno
 Viaggio in gruppo/con bambini
Cerca

Cerca per:
 ▼ Fascia Di Prezzo (a notte)
 € 0 - € 49
 € 50 - € 99
 € 100 - € 149
 € 150 - € 199
 Da € 200
 ▼ Star Rating
 1 stella 3 alberghi
 2 stelle 14 alberghi
 3 stelle 92 alberghi
 4 stelle 53 alberghi
 5 stelle 7 alberghi
 Nessuna classificazione 43 alberghi
 ▼ Tipo Di Alloggio
 Appartamento 24 alberghi
 Albergo 149 alberghi

334 Hotel trovati a Budapest, 212 Disponibili, Risultati 1 – 20 [Visualizza mappa](#)

Ordina per: **Più Quotati** | Disponibilità | Prenotati Di Recente | Stelle | Posizione | Tariffa | Valutazione Clienti

Danubius Hotel Gellért ★★★★★ **Buono, 7.8**
 Szent Gellért tér 1, 11. Újbuda, Budapest • [Visualizza mappa](#)
 Costruito in uno splendido Liberty e inaugurato nel 1918, il maestoso Hotel Gellért occupa lo stesso edificio del famoso centro benessere Gellért, accessibile gratuitamente. C'è 1 persona che sta visualizzando questo hotel. [Maggiori Informazioni](#)
 Ultima prenotazione: 1 ora fa

Tipologie Disponibili	Persone	Disponibilità	Tariffa
Camera Matrimoniale/Doppia con Letti Singoli	2	3 camere rimaste	€ 1000
Camera Singola con Doccia	1	3 camere rimaste	€ 500
Camera Superior Matrimoniale/Doppia con Letti Singoli con Vista	2	3 camere rimaste	€ 1000
Camera Matrimoniale/Doppia con Letti Singoli e Vista	2	2 camere rimaste	€ 1000

Eurostars Budapest Center ★★★★★ **Favoloso, 8.9**
 Kossuth Lajos U. 7-9, 05. Belváros - Lipótváros, Budapest • [Visualizza mappa](#)
 Inaugurato nel 2010, a soli 3 minuti a piedi dal Museo Nazionale Ungherese, dalla Grande Sinagoga e dalla stazione della metropolitana Astoria, questo hotel offre camere eleganti nel cuore di... Ci sono 4 persone che stanno visualizzando questo hotel. [Maggiori Informazioni](#)
 Ultima prenotazione: 1 ora fa

Tipologie Disponibili	Persone	Disponibilità	Tariffa
Offerta Speciale - Camera Matrimoniale/Doppia con Letti Singoli Tariffa migliore	2	Disponibile	€ 174 - € 89
Offerta Speciale - Camera Matrimoniale/Doppia con Letti Singoli Tariffa migliore	1	Disponibile	€ 84
Camera Matrimoniale/Doppia con Letti Singoli Tariffa migliore	2	Disponibile	€ 289 - € 99

▶ altre 5 tipologie di camera

Continental Hotel Zara ★★★★★ **Favoloso, 8.7**
 Dohány u. 42-44, 07. Erzsébetváros, Budapest • [Visualizza mappa](#)
 Questo Hotel Zara superior a 4 stelle è stato inaugurato nel 2010 e occupa lo stesso edificio in stile Liberty che ospitava i famosi Bagni Hungaria. Ci sono 4 persone che stanno visualizzando questo hotel. [Maggiori Informazioni](#)
 Ultima prenotazione: 48 minuti fa

Tipologie Disponibili	Persone	Disponibilità	Tariffa
Camera Matrimoniale Standard Tariffa migliore	2	Disponibile	€ 379 - € 209
Camera Standard Doppia con Letti Singoli	2	4 camere rimaste	€ 279 - € 209

Adesso: 19 °C Oggi: 25 °C Sab: 26 °C

... or this one

Firefox - Vacanze Budapest - Viaggi Budapest - re...
http://www.tripadvisor.it/Tourism-g274887-Budapest-Vacations.html

Collegati | Ciao rtorlone@gmail.com | Il tuo TripAdvisor | Esci | Applicazione mobile GRATIS

tripadvisor.it

LE MIGLIORI METE DEL 2011 OTTIENI LA LISTA ▶

Vacanze Budapest - Viaggi Budapest


Home Hotel Voli **Novità** Ristoranti Idee viaggio Scrivi una recensione

Città, nome dell'hotel ecc. Solo risultati in italiano Ricerca Più di 45 milioni di recensioni & opinioni

Home → Europa → Ungheria → Budapest

Vacanze Budapest, Ungheria

Mi piace 42



Fisherman's Bastion mar 2007 (Sailorsgirl)

Tutte le foto dei viaggiatori | Tutti i video dei viaggiatori

Hotel più votati

334 hotel

- 1 Hotel Palazzo Zichy 676 recensioni
- 2 Corinthia Hotel Budapest 1.240 recensioni
- 3 Hotel Regnum Residence 43 recensioni
- 4 BEST WESTERN Premier Hotel Parla... 276 recensioni
- 5 Opera Garden Hotel & Apartments 231 recensioni

B&B più votati

95 B&B

- 1 Kapital Inn 169 recensioni
- 2 B & B Bellevue Budapest 141 recensioni
- 3 Buda Castle Fashion Hotel 167 recensioni

Attività più votate

207 attività

Attrazioni turistiche


- 1 Faust Wine Cellar 61 recensioni
- 2 Cheparade Cooking School 45 recensioni

Il vincitore dei premi Travellers' Choice™ 2011 Per famiglie

Siti Patrimoni dell'Umanità a Budapest

- Budapest, comprese le rive del Danubio, il quartiere del Castello di Buda e Andrassy Avenue

Maggiori informazioni >



Guida gratuita di Budapest

Guida pratica ai migliori hotel, ristoranti e attrattive turistiche.

Alberghi Ristoranti Cose da fare

Prendi e vai!

Informazioni meteo Budapest

Mese	Massima	Minima
mag	21°C	8°C
giu	23°C	11°C
lug	25°C	13°C
ago	26°C	14°C
set	24°C	12°C
ott	20°C	8°C
nov	15°C	5°C
dic	10°C	0°C

Recensioni recenti su hotel vicino a Budapest

Mercure Budapest City Center 383 recensioni

tripadvisor.it

GRATIS la guida ai meravigliosi siti del Patrimonio Mondiale dell'UNESCO >

Adesso: 19°C Oggi: 25°C Sab: 26°C

Using the Web

Let's organize a trip to Budapest using the Web!

- First: you try to find a proper flight with ...
- Second: you have to find a hotel, so you look for...
- Third: you may want to know something about Budapest; look for some photographs...

... on flickr ...

The screenshot shows a Firefox browser window with the address bar containing `http://www.flickr.com/search/?q=budapest&f=hp`. The page displays the Flickr search results for 'budapest'. The Flickr logo and navigation links (Home, The Tour, Sign Up, Explore, Upload) are at the top. The search bar shows 'budapest' and a 'SEARCH' button. Below the search bar, there are options for 'Sort' (Relevant, Recent, Interesting) and 'View' (Small, Medium, Detail, Slideshow). The main content area is a grid of photo thumbnails, each with a caption below it. On the right side, there are sections for 'Groups', 'Photographers', 'Tag Clusters', 'Looking to license a photo?', and 'Places'. The system tray at the bottom shows the date and time as 'Adesso: 19 °C Oggi: 25 °C Sab: 26 °C'.

Firefox | budapest - Flickr: Search
http://www.flickr.com/search/?q=budapest&f=hp

flickr® from YAHOO!
Home The Tour Sign Up Explore Upload

You aren't signed in Sign In Help

Search Photos Groups People
Everyone's Uploads budapest SEARCH Full Text | Tags Only Advanced Search

Sort: Relevant Recent Interesting View: Small Medium Detail Slideshow

From TheMutant... From -yury- From Chaos... From -yury- From -yury- From Weije~ From efrainhu

From aevin From ribizifo... From createsima From createsima From createsima From ortelius From ortelius

From -yury- From j v d From Betsy1970 From temp13rec. From bruxelles5 From bruxelles5 From Pedro y...

From BokuSatchil From bajolagua.es From Antani77 From Knud Erik... From Niva... From -yury- From fairyboy...

From fairyboy... From Beija-flor From pentothal From Juan Vte.... From tutuka From Beyond... From ppcvillaba

From BokuSatchil From bajolagua.es From Antani77 From Knud Erik... From Niva... From -yury- From fairyboy... From fairyboy... From Beija-flor From pentothal From Juan Vte.... From tutuka From Beyond... From ppcvillaba

Groups more...
Budapest 2,613 members | 40,043 photos
Budapest, Hungary 2,600 members | 26,240 photos

Photographers more...
temp13rec. See related photos
The Crow2 - Budapest, Hungary See related photos

Tag Clusters
Photos with tags like hungary, danube and bridge

Looking to license a photo?
Looking to license an image? You can search through the treasure trove of Flickr members enrolled in the Getty Images Program.

Places more...
Budapest, Budapest See related photos
Mogyoród, Pest See related photos

Adesso: 19 °C Oggi: 25 °C Sab: 26 °C

... on Google ...

Firefox | budapest - Google Search | http://www.google.com/search?q=budapest&oe=utf-8&rls=org.mozilla:it:official&client=firefox-a&um=1&ie=UTF-8&tbn=isch&source=og&si

Web Images Videos Maps News Shopping Gmail more - riccardo.torlone@gmail.com

Google

budapest Search SafeSearch off

About 8,210,000 results (0.09 seconds) Advanced search

Related searches: [budapest girls](#) [budapest hungary](#) [budapest europe map](#) [budapest world map](#) [budapest parliament](#)

Everything
Images
Videos
News
Shopping
Blogs
More

Sort by relevance
Sort by subject

Any size
Large
Medium
Icon
Larger than...
Exactly...

Any color
Full color
Black and white

Any type
Face
Photo
Clip art
Line drawing

Standard view
Show sizes

http://www.google.com/search?um=1&hl=en&safe=...a=X&ei=WCXWTbniCM3Tsgbl8cDQBw&ved=0CDoQ1QIoAg

Adesso: 19 °C Oggi: 25 °C Sab: 26 °C

... or a (social) travel site

The screenshot shows the RealTravel website for Budapest. The browser is Firefox, and the URL is <http://realtravel.com/d-15448-budapest>. The page features a search bar, navigation links, and a main content area with a description of Budapest, a gallery of traveler photos, and a list of hotel recommendations.

realtravel
SOCIAL HOTEL RECOMMENDATIONS

Search by hotel name or city... **Search** [Sign In](#)

[Home](#) > [Hungary](#) > [Budapest](#) > Overview

explore **Budapest**: [Overview](#) [Traveler Experiences](#) [Traveler Photos](#) [Hotels](#) [Things to Do](#) [Restaurants](#) [Map](#)

Budapest Vacation & Tourism Guide


 This capital city - made up of two parts, Buda and Pest - sits on one of the most beautiful areas of the Danube River and it shows. Often dubbed the "Paris of Eastern Europe", it is a combination of Old World grandeur and a thriving cultural scene. Budapest has a vibrancy and vitality that never slows and the numerous sights can occupy travelers for weeks. With so much history and culture to explore, no traveler leaves unsatisfied.


photo by Real Traveler [Annina](#)

Great Recommendations from Real Travelers

[Top Hotels](#) [Top Things to Do](#) [Top Restaurants](#)

1. [Airport Hotel Budapest](#) ★★★★★
Real Traveler Rating: 4.7 out of 5 based on [28 reviews](#) from 6 sources

[Check Rates](#) > from \$78.79

 **HIGHLY recommended** Based on **28 reviews** from 6 sources.

Service: ●●●●● Location: ●●●●○ Room: ●●●●○
"Hotel was really great." — source Expedia
"Since the hotel is brand new the rooms were very clean." — source Orbitz

2. [Normafa Hotel Budapest](#) ★★★★★ Highly Recommended from \$50.24 [check rates >](#)

3. [Le Meridien Budapest](#) ★★★★★ Highly Recommended from \$151.84 [check rates >](#)

4. [K and K Hotel Opera](#) ★★★★★ Highly Recommended from \$83.35 [check rates >](#)

5. [Starlight Suiten Hote...](#) ★★★★★ Highly Recommended

6. [Adina Apartment Hotel](#) ★★★★★ Highly Recommended

7. [Boutique Hotel Zara](#) ★★★★★ Highly Recommended

Traveler Photos of Budapest



[See all photos in Budapest >](#)

How can we serve you better?
[Share your feedback >](#)

explore **Budapest**:

[Overview](#)

[Traveler Experiences](#)

[Traveler Photos](#)

[Hotels](#)

[Things to Do](#)

[Restaurants](#)

[Map](#)

Adesso: 19 °C Oggi: 25 °C Sab: 26 °C

What happened here?

- You had to consult a large number of sites, all different in style, purpose, possibly language...
- You had to mentally integrate all those information to achieve your goals
- We all know that, sometimes, this is a long and tedious process!

Hidden Web

- All those pages are only tips of respective icebergs:
 - the real data is hidden somewhere in databases, XML files, Excel sheets, ...
 - you have only access to what the Web page designers allow you to see

Some solution exists

- Specialized sites (Expedia, TripAdvisor) do a bit more:
 - they gather and combine data from other sources (usually with the approval of the data owners)
 - but they still control how you see those sources
- But sometimes you want to personalize: access the original data and combine it yourself!

Here is another example...

The image shows three overlapping web browser windows. The background window is 'CoCoDat - Collation of Cortical Data', the middle window is 'Cell Centered Database Gallery', and the foreground window is 'NeuronDB = Thalamic relay neuron - Overview (A) ()'. The NeuronDB window displays a detailed overview of a thalamic relay neuron, including a diagram and a list of its components.

CoCoDat: Collation of Cortical [S microcircuitry] Data

CoCoDat is a microcircuitry database that published experimental reports. The data and cellular compartment), as well as the

- Morphology
- Firing properties
- Ionic currents
- Ionic conductances
- Synaptic currents
- Connectivity

The database is available for download using data tables but also a Search Board with manual or automatic relaxation of the search

- Brain region
- Layer
- Neuron type

Cell Centered Database™ Gallery
National Center for Microscopy and Imaging Research

Data | Search | Gallery | Dictionary | Publications | MyCCDB | Data Download | Contact us | Help

2D image | Reconstruction | Segmentation | Animation

NeuronDB

Thalamic relay neuron

Back

Mode: **Overview** Data/Search plus Connectivity plus Classical References/Notes Models

Region: **Distal equivalent dendrite** Middle equivalent dendrite Proximal equivalent dendrite Soma Axon hillock Axon fiber Axon terminal All Compartments

Properties: **Receptors** Channels Transmitters **All Properties**

Interoperation: **Gene and Chromosome** Experimental Data (neurodatabase.org) Microscopy Data (CCDB)

Neuron type: principal
Organism: Vertebrates

1. Equivalent dendrite [Show other](#)

2. Distal equivalent dendrite [Show other](#)

3. Middle equivalent dendrite [Show other](#)

4. Proximal equivalent dendrite [Show other](#)

5. Soma [Show other](#)

Done

Another example

Social sites

- I have a list of “friends” by...

... Plaxo,

The screenshot shows the Plaxo web interface in a Firefox browser window. The address bar displays `http://www.plaxo.com/ab/contactList#`. The page header includes the Plaxo logo, navigation links (Home, Rubrica, Sincronizzazione e backup), a search bar with the text "Trova contatti", and the user's name "Riccardo Torlone" with a profile picture and "PLAXO BASIC" label. Below the header, there are several service banners: "Strumenti Platinum Sync 30 giorni gratuiti", "Sincronizzazione con Outlook", "Google Sync", "Cartoline illimitate", "Backup e ripristino", and "Assistenza clienti VIP".

The main content area is titled "Tutti i contatti (70)" and features a search bar "Search All Contacts" and an alphabetical index "A B C D E F G H I J K L M N O P Q R S T U V W X Y Z #". Below the search bar are action buttons: "Email", "Merge", "Print", "Delete", and "Aggiungi a gruppo".

The contact list is organized by letter. Under the letter "A", the following contacts are listed:

- ac@andreacali.com**
- Aldo Necci** <necci@dia.uniroma3.it>
- Alessandro La Rosa** alessandro.larosa@gmail.com
- Alessio Sabbatini** alessiosabbatini@hotmail.it
- Andrea Cali** andrea.cali@gmail.com
- andreamirto@tiscali.it**
- Angela Elisa Spano** <AngelaElisa.Spano@agenziadema...>
- atzeni@dia.uniroma3.it**

Under the letter "B", the following contact is listed:

- barbara.pernici@polimi.it**

Under the letter "C", the following contact is listed:

- Bruno Pelaia** bruno.pelaia@capgemini.com
+39 3493720714 (mobile)
+39 23190.1 (work)
(+ 1 more)
Via di Torre Spaccata, 140
001...

The bottom of the browser window shows the Windows taskbar with the system tray displaying the time and weather: "Adesso: 26 °C", "Oggi: 24 °C", "Sab: 25 °C".

... LinkedIn,

Firefox | Connections | LinkedIn | http://www.linkedin.com/connections?trk=hb_tab_cnts_top

Account Type: Basic | Riccardo Torlone | Add Connections

Home | Profile | Contacts | Groups | Jobs | Inbox | Companies | News | More | People | Advanced

My Connections | Imported Contacts | Profile Organizer | Network Statistics | Add Connections | Remove Connections

Share your phone, IM and more with your connections. Update it now »

Filter Connections | Select: All, None | ABC

All Connections (195)

Tags: friends (52), colleagues (36), classmates (20), group members (10), partners (9), untagged (68)

Companies | Locations | Industries | Recent Activity

Name	Title	Count
Salemi, Silvia	Senior product manager - Telecom Italia S.p.a	241
Santarelli, Amedeo	Senior Software Engineer - Capgemini	58
Sartori, Claudio	Consultant - University of Modena and Reggio Emilia - Information Engineering Department	133
Savignoni, Livia	Product Development Manager - Euler Hermes Siac	72
Scalet, Clarissa	direzione amministrativa - ad maiora	153
Schettini, Giuseppe	Full Professor - Università degli Studi Roma Tre	47
Schiboni, Ludovico	Assistant Product Manager - L'Oreal	133
Scorretti, Francesco	Project Manager, Innovation - Architectures, Innovation &	481

Quickly view and organize your connections? Select a category or individual to see contact info, send a message and more.

4 outstanding sent invitations | Export connections

Help Center | About | Blog | Careers | Advertising | Recruiting Solutions | Tools | Mobile | Developers | Publishers | Language | Upgrade My Account

LinkedIn Corporation © 2011 | User Agreement | Privacy Policy | Copyright Policy | Send Feedback

Adesso: 19 °C | Oggi: 25 °C | Sab: 26 °C

... Twitter,

The screenshot shows the Twitter homepage in a Firefox browser window. The address bar displays "http://twitter.com/". The page features a navigation bar with "Home", "Profile", "Messages", and "Who To Follow" options. The main content area is divided into several sections:

- What's happening?**: A search bar and a "Timeline" tab.
- Timeline**: A list of tweets from users including **andreacali**, **innovlab**, **QueenRania**, **BarackObama**, and **gvetere**.
- Following 12** and **Followers 5**: Lists of users following and followed by the user.
- What's next?**: A list of tasks such as "Write your first Tweet", "Set up your profile", and "Get Twitter on your phone".
- Find Friends**: A section with links to social services like Gmail, Yahoo, Hotmail, AOL, and LinkedIn.
- Trends**: A list of trending topics including "Worldwide", "#sometimesyouhaveto", and "Zombie Apocalypse".
- Who to follow**: A section with suggestions for users to follow, including **TIME**, **CoryBooker**, and **GavinNewsom**.

The browser's status bar at the bottom shows the system tray with weather information: "Adesso: 19 °C", "Oggi: 25 °C", and "Sab: 26 °C".

...Xing,

La Repubblica.it - Home... Contatti | XING

Xing AG [DE] https://www.xing.com/app/contact?op=toconfirm

TV Database Didattica Finanza Personali RM3 Software iGoogle Maps CD DIA Ingegneria Mac Appartamenti Annunci per Case V... Moodle RUPAR PRE OFF. Altri Preferiti

Logout Invia contatti Aiuto e Contatto Italiano

Sei un utente standard.

Diventa subito Utente Premium! Ulteriori informazioni





Riccardo Torlone
Profilo | ✉ 0 | 👤 4 | Altro

INIZIO RICERCA MESSAGGI **CONTATTI** GRUPPI EVENTI LAVORO ORGANIZZAZIONI BEST OFFERS


I miei contatti


Contatti confermati Contatti non confermati Utenti interessanti **Contatti da confermare**

Quando respingi una richiesta di contatto, puoi scegliere se desideri che la persona interessata venga informata o meno. Contatti 1-4 di 4

Nome, società	Richiesta effettuata il	Invia messaggio	Conferma	Respingi	Spam
 Dr. Massimiliano Pasquale Carpentieri aemmeCONSULTING	20/11/2010	✉	👤	✕	👤
Motivazione per l'aggiunta del contatto: Gentile Riccardo,, vorrei aggiungerti ai miei contatti.					
 Raffaele Nicolussi Fondazione Ugo Bordoni	04/02/2010	✉	👤	✕	👤
Motivazione per l'aggiunta del contatto: Ciao! :)					
 Alessandro Pierantoni Alessandro Pierantoni	24/10/2008	✉	👤	✕	👤
Motivazione per l'aggiunta del contatto: benvenuto					
 Michele Schioppa Michele Schioppa	24/10/2008	✉	👤	✕	👤
Motivazione per l'aggiunta del contatto: Salve, mi interesserebbe entrare a far parte dei suoi contatti. A Presto Michele Schioppa					

Utenti che potresti conoscere

 **gloria malvestuto**
università roma3

 **Enrico Valbonesi**

Espandi il tuo network

Invita dei contatti a iscriversi a XING:

Utilizza la virgola per separare gli indirizzi e-mail

Invia invito

Aggiungi un messaggio di invito

Oppure invita vari contatti della tua rubrica di posta elettronica:

Windows Live Internet Google Yahoo!

➤ Trova contatti

... and, of course, Facebook

The screenshot shows a Firefox browser window displaying the Facebook profile of Riccardo Torlone. The browser's address bar shows the URL: `http://www.facebook.com/profile.php?id=1345347637&sk=friends`. The Facebook interface includes a search bar with the text "Ricerca" and navigation links for "Home", "Profilo", and "Account".

The main content area is titled "Riccardo Torlone ▶ Amici" and features a search box labeled "Cerca per nome" with the placeholder text "Digita il nome di un amico". Below this is a list of friends, each with a profile picture and name:

- Agnese Rollo
- Alberto Tenderini (Roma Tre)
- Aldo Menichelli
- Alessandra Pelagatti
- Alessandro La Rosa
- Alessandro Simonetta
- Alessandro Siro Campi (Politecnico di Milano)
- Alessandro Talamo
- Alessia Barbato
- Alessia Santamaria
- Alfio Ferrara (Università degli Studi di Milano)
- Alfredo Cuzzocrea

On the right side, there is a section "Persone che potresti conoscere" with a "Mostra tutti" link. It lists two potential friends:

- Patrizio Angelini (17 amici in comune, Aggiungi agli amici)
- Raffaella Arista (21 amici in comune, Aggiungi agli amici)

Below this is a "Sponsorizzate" section with a "Crea un'inserzione" link.

The left sidebar contains navigation options: "Bacheca", "Info", "Foto (21)", "Note", and "Amici". Under "Amici (324)", a list of friend profile pictures is shown with their names: Simona De Geronimo, Maria Adele, Tania Mattei, Marco StraRipa, Pierluigi Mantini, Paola Lilla della Monica, Rosa Piscitelli, Moira Norrie, and Torlone Gloria.

At the bottom right, there is a "Chat (19)" indicator. The system tray at the very bottom shows the date and time, along with weather information: "Adesso: 19 °C", "Oggi: 25 °C", and "Sab: 26 °C".

Problems here too

- I had to type in and connect with friends again and again for each site independently
- This is even worse than before: I feed the icebergs, but I still do not have an easy access to data...

What would we like to have?

- Use the data on the Web the same way as we do with documents:
 - be able to link to data (independently of their presentation)
 - use that data the way I want (present it, mine it, etc)
 - agents, programs, scripts, etc, should be able to interpret part of that data
- Put it another way...
 - We would like to extend the current Web to a “Web of data”
 - Allow for applications to exploit the data directly

But wait! Isn't what mashup sites are already doing?

Firefox | Sample Itinerary - Sample Itinerary Tem... | http://www.tripit.com/uhp/sampleitinerary?us=ti&um=em&un=we

Planning travel for your office? Start your free trial of TripIt for Business now. Riccardo Tortone | Apps | Add a trip | Support

Home | Trips | Network | Point Tracker | TripIt Pro

Share trips with **f Connect**

Sample TripIt Itinerary

Keep all of your travel details in one place, including maps, directions, route, weather, pictures, and more. To get started, simply forward any of your travel confirmation emails to plans@tripit.com.

Everything looks good, but TripIt Pro will keep monitoring this trip. Update

See who's close to you and share your itinerary with friends, family and colleagues.

Created automatically from United Airlines confirmation email forwarded to TripIt.

Maps of your destination automatically added to your itinerary.

San Francisco, CA, May 2010

May 29 - Jun 1, 2010 - San Francisco, CA
Boston, MA; San Francisco, CA

Print | Export to calendar | More

1 People and sharing
Who's close
Tyler Guthrie
People
Travelers: James Sanderson
Non-travelers: Will Aldrich
Social networks
TripIt Contacts, Facebook and LinkedIn
This trip is not private.

STAY YOU.

Advertisement

FLY WITH ON-DEMAND MOVIES, MUSIC, AND THE INTERNET.
SFO to JFK FROM ONLY \$149*
GET TO NYC
american

DEALS Complete your trip
Car Rental: Save up to 10% on car rentals with Hertz
Car rental: Save up to 25% on car rentals with Avis.
Shuttles: Save \$2 with SuperShuttle.
Limos: Find the perfect limo for your trip at limos.com.
Dining: Save time, reserve online at OpenTable.

Comments

Sat, May 29 San Francisco, CA - Avg: Hi 70°F / Lo 55°F

6:04 PM EDT Flight from Boston (BOS) to San Francisco (SFO) - Options

On Time United Airlines 179
Aircraft Boeing 757-200
Boston, MA, 44m 2.697mi Economy (1) seat 26F

Depart: Boston (BOS), 6:04pm EDT terminal C
Arrive: San Francisco (SFO), 9:48pm PDT terminal 3

Passenger James Sanderson
Booking Information
Booked on United Airlines
http://www.united.com
1-800-864-8331

9:58 PM PDT Map of San Francisco, CA - Options

San Francisco, CA

Map | Satellite | Hybrid

San Francisco

Sun, May 30 San Francisco, CA - Avg: Hi 72°F / Lo 55°F

10:46 AM PDT Your Hertz Car Rental (pick-up) - Options

Adesso: 24 °C Oggi: 25 °C Sab: 26 °C

Mashup solution

- In some ways, yes, and that shows the huge power of what such Web of data provides
- But mashup sites are forced to do very ad-hoc jobs
 - various data sources expose their data via Web Services
 - each with a different API, a different logic, different structure
 - these sites are forced to reinvent the wheel many times because there is no standard way of doing things

Put it another way (again)...

- We would like to extend the current Web to a standard way for a “Web of data”
- But what does this mean?
- What makes the current (document) Web work?
 - people create different documents
 - they give an address to it (ie, a URI) and make it accessible to others on the Web

My home page



Firefox

Riccardo Torlone's Web site

http://torlone.dia.uniroma3.it/

scholar



Prof. Riccardo Torlone

Università Roma Tre

- Home
- Bio sketch
- Research
- Teaching*
- Tesi***
- Books
- Activities
- Pictures
- *in italian



Contact Information

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Office hours

Friday, 11.00-13.00
Room 209, 2nd floor

Adesso: 26 °C Oggi: 24 °C Sab: 25 °C

Then some magic happens...

- Others discover the site and they link to it
- The more they link to it, the more important and well known the page becomes
 - remember, this is what, eg, Google exploits!
- This is the “Network effect”: some pages become important, and others begin to rely on it even if the author did not expect it...

This could be expected...

Firefox | Uniroma3.it :: Prof. Riccardo Torlone

http://www.uniroma3.it/persona.php?persona=L1a6jIN3wI0+WenCBkmBrst04BZxcFGyq3v1XODbZMZM=&cf={cf}

ROMA TRE UNIVERSITÀ DEGLI STUDI

Cerca (nelle pagine e nella rubrica) RAPIDO

trova ricerca avanzata in rubrica vai che cos'è rapido?

english | chi contattare per... | accessibilità

studenti futuri | studenti iscritti | laureati | personale

L'Ateneo Didattica Ricerca Scientifica Servizi agli Studenti Servizi al Personale

Home > Rubrica: ricerca avanzata

Prof. Riccardo Torlone

Qualora le informazioni riportate a lato risultino assenti, incomplete o errate leggi [le seguenti istruzioni](#)

Per telefonare da un edificio dell'Ateneo all'altro SE il numero unico inizia con "06 5733xxxx" basta comporre le ultime quattro cifre del numero esteso.

Qualifica	Professore Ordinario
Settore Scientifico Disciplinare	ING-INF/05
Tel	0657333377
Fax	06 57333211
Cellulare aziendale	87374
Email	torlone@dia.uniroma3.it
Indirizzo	Via della Vasca Navale, 79
Struttura/Afferenza	> Facoltà di INGEGNERIA > Dipartimento di Informatica e Automazione
Cariche e Responsabilità	> Presidente Collegio Didattico di Ingegneria Informatica
Altre Informazioni	Sito Web Personale

Insegnamenti | **Ricerca** | Laboratori

Anno accademico 2009-2010

Basi di Dati II

- > Laurea Magistrale in Ingegneria Informatica (Dm 270) - [dettaglio](#)

Calcolatori Elettronici

- > Laurea in Ingegneria Informatica (Dm 270) - [dettaglio](#)
- > Laurea Magistrale in Ingegneria delle Tecnologie della Comunicazione e dell'Informazione (Dm 270) - [dettaglio](#)

Anno accademico 2008-2009

Basi di Dati II

Adesso: 24 °C | Oggi: 25 °C | Sab: 26 °C

but this one, was not...

Firefox :: SisInf Lab - Home Page ::
http://sisinflab.poliba.it/index.php?page=publications&pg=2

2010

[Semantic Wonder Cloud: exploratory search in DBpedia](#)
Roberto Mirizzi, Azzurra Ragone, Tommaso Di Noia, Eugenio Di Sciascio
2th International Workshop on Semantic Web Information Management (SWIM 2010) - Best Workshop Paper at International Conference on Web Engineering (ICWE 2010) - 2010

[Semantic-based Geographical Matchmaking in Ubiquitous Computing](#)
Michele Ruta, Floriano Scioscia, Eugenio Di Sciascio, Giacomo Piscitelli
The Fourth International Conference on Advances in Semantic Processing (SEMAPRO2010), page 166--172 - 2010

[Semantic-based Resource Discovery, Composition and Substitution in IEEE 802.11 Mobile Ad Hoc Networks](#)
Michele Ruta, Giammarco Zacheo, Alfredo L. Grieco, Tommaso Di Noia, Gennaro Boggia, Eufemia Tinelli, Pietro Camarda, Eugenio Di Sciascio
Wireless Networks, Volume 16, Number 5, page 1223--1251 - 2010

[Semantic-based RFID Data Management](#)
Roberto De Virgilio, Eugenio Di Sciascio, Michele Ruta, Floriano Scioscia, Riccardo Torlone
Unique Radio Innovation for the 21st Century: Building Scalable and Global RFID Networks, Springer, page 111--142 - 2010

[SWOP: A Semantic Web services Oriented Platform](#)
Eufemia Tinelli, Michele Filannino, Daniele Casulli, Leo Jaquinta
6th Workshop on Semantic Web Applications and Perspectives - 2010

[T^2.O.M. T.O.M.: Techniques and Technologies for an Ontology-based Mobility Tool with Open Maps](#)
Michele Ruta, Floriano Scioscia, Saverio Ieva, Eugenio Di Sciascio
ICWE 2010 Workshops - 2nd International Workshop on Semantic Web Information Management (SWIM 2010), Volume 6385, page 199--210 - 2010

[What if Exploratory Search and Web Search meet?](#)
Roberto Mirizzi, Azzurra Ragone, Tommaso Di Noia, Eugenio Di Sciascio
6th Workshop on Semantic Web Applications and Perspectives (SWAP 2010) - 2010

Publications in 2009

[A Combination of Boolean Games with Description Logics for Automated Multi-Attribute Negotiation](#)
Thomas Lukasiewicz, Azzurra Ragone
Proc. of the 22st Intl. Workshop on Description Logics (DL 2009), Volume 477 - 2009

Display the complete list (235 publications) « 1 2 3 4 5 6 7 8 9 10 11 12 »

© 2005 Sisinf Research Group.
Design by Andreas Vildund

Trova: robe
Successivo Precedente Evidenzia Maiuscole/minuscole Fine della pagina raggiunta; si continua dall'inizio
Adesso: 24 °C Oggi: 25 °C Sab: 26 °C

What would that mean for a Web of Data?

- Lessons learned: we should be able to:
 - “publish” the data to make it known on the Web
 - standard ways should be used instead of ad-hoc approaches
 - make it possible to “link” to that URI from other sources of data (not only Web pages)
 - i.e., applications should not be forced to make targeted developments to access the data
 - generic, standard approaches should suffice
 - and let the network effect work its way...

But it is a little bit more complicated

- On the traditional Web, humans are implicitly taken into account
- A Web link has a “context” that a person may use

Eg: address field on my page:



Firefox

Riccardo Torlone's Web site

http://torlone.dia.uniroma3.it/

scholar

 **Prof. Riccardo Torlone**
Università Roma Tre

Home
Bio sketch
Research
Teaching*
Tesi*
Books
Activities
Pictures
*in italian

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Fax +39 06 5733 3612
Email **torlone at dia.uniroma3.it**

Office hours

Friday, 11.00-13.00
Room 209, 2nd floor

Adesso: 26 °C Oggi: 24 °C Sab: 25 °C

... leading to this page

The screenshot shows a Firefox browser window displaying the website of the Department of Informatics and Automation at the University of Rome Tre. The browser's address bar shows the URL: http://www.dia.uniroma3.it/Plone/departement-of-informatics-and-automation?set_language=en. The website header includes the university name, the department name, and navigation links for Site Map, Accessibility, and Contact. A search bar is also present.

The main content area features a large heading: **Department of Informatics and Automation**. Below this, there are three paragraphs of text describing the department's history, faculty, and research areas. A 'Contacts' section provides the department's address and contact information. A 'News' sidebar on the right lists recent articles, and a calendar for May 2011 is displayed.

At the bottom of the page, there is a copyright notice and technical information about the website's development.

© 2003-2011 Dipartimento di Informatica e Automazione
Università degli Studi Roma Tre

Powered by Plone Valid XHTML Valid CSS (CSS3) Section 508 WCAG

The browser's taskbar at the bottom shows the system tray with weather information: Adesso: 26 °C, Oggi: 24 °C, Sab: 25 °C.

Human interpretation

- A human understands that this is my institution's home page
- He/she knows what it means (realizes that it is a University Department in Rome)
- On a Web of Data, something is missing; machines can't make sense of the link alone

New lesson learned

- extra information (“label”) must be added to a link: “this links to my institution, which is a research institute”
- this information should be machine readable
- this is a characterization (or “classification”) of both the link and its target
- in some cases, the classification should allow for some limited “reasoning”

Let us put it together

- What we need for a Web of Data:
 - use URI-s to publish data, not only full documents
 - allow the data to link to other data
 - characterize/classify the data and the links (the “terms”) to convey some extra meaning
 - and use standards for all these!

So What is the Semantic Web?

- It is a collection of standard technologies to realize a Web of Data
- It is that simple....the devil is in the details
 - a common model has to be provided for machines to describe, query, etc, the data and their connections
 - the “classification” of the terms can become very complex for specific knowledge areas: this is where ontologies, thesauri, etc, enter the game...



The rough structure of data integration

- Map the various data onto an abstract data representation
 - make the data independent of its internal representation...
- Merge the resulting representations
- Start making queries on the whole!
 - queries that could not have been done on the individual data sets

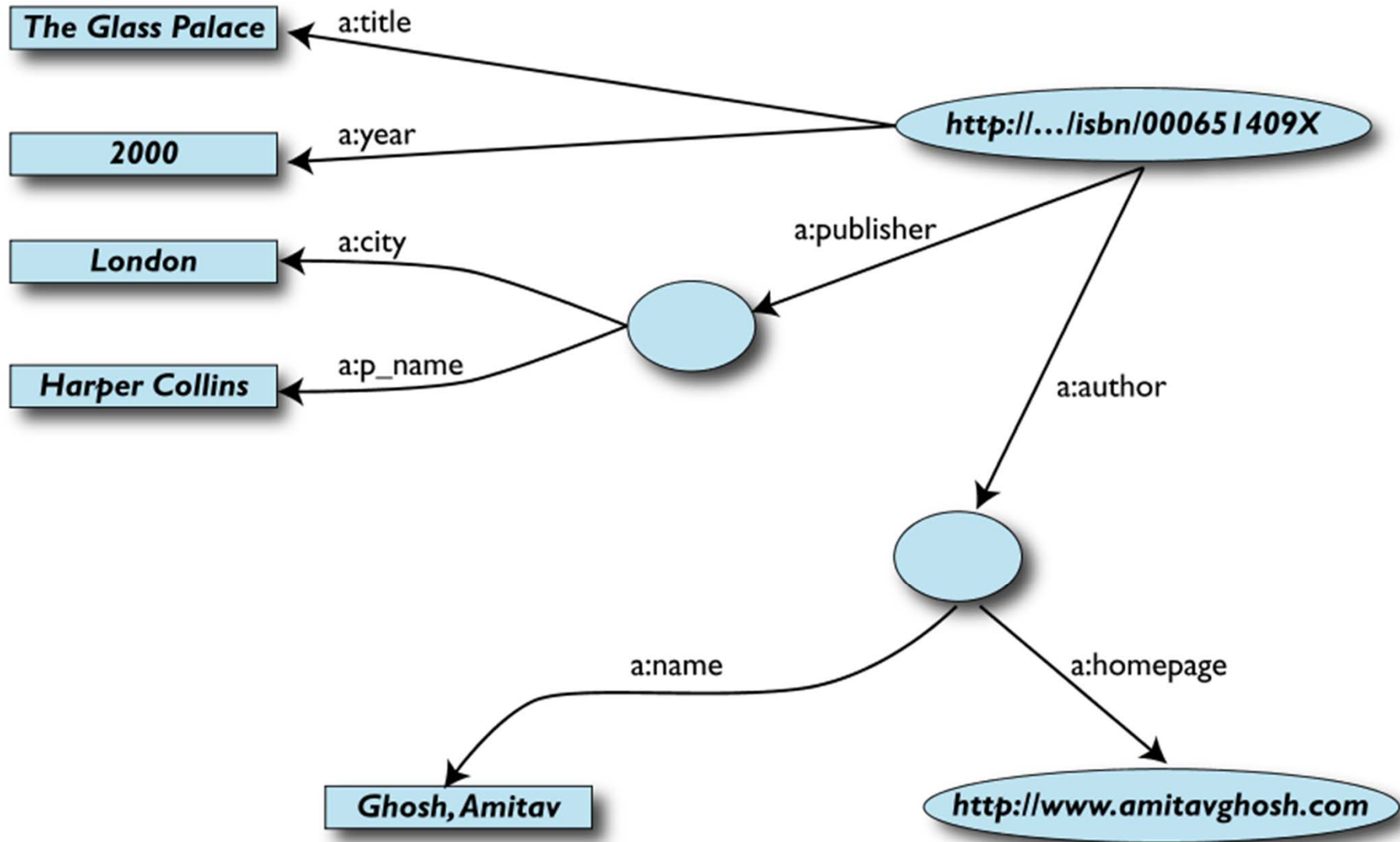
A simplified bookstore data (dataset “A”)

ID	AUTHOR	TITLE	PUBLISHER	YEAR
ISBN-00-0651049-X	id_auth1	The glass Palace	id_pub1	2000

ID	AUTHOR NAME	HOME PAGE
id_auth1	Amitav Gosh	http://www.goshamitav.com

ID	PUBLISHER NAME	CITY
id_pub1	Harper Collins	London

1st: export your data as a set of relations



Some notes on the exporting the data

- Relations form a graph
 - the nodes refer to the “real” data or contain some literal
 - how the graph is represented in machine is immaterial for now
- Data export does not necessarily mean physical conversion of the data
 - relations can be generated on-the-fly at query time
 - via SQL “bridges”
 - scraping HTML pages
 - extracting data from Excel sheets
 - etc.
- One can export part of the data

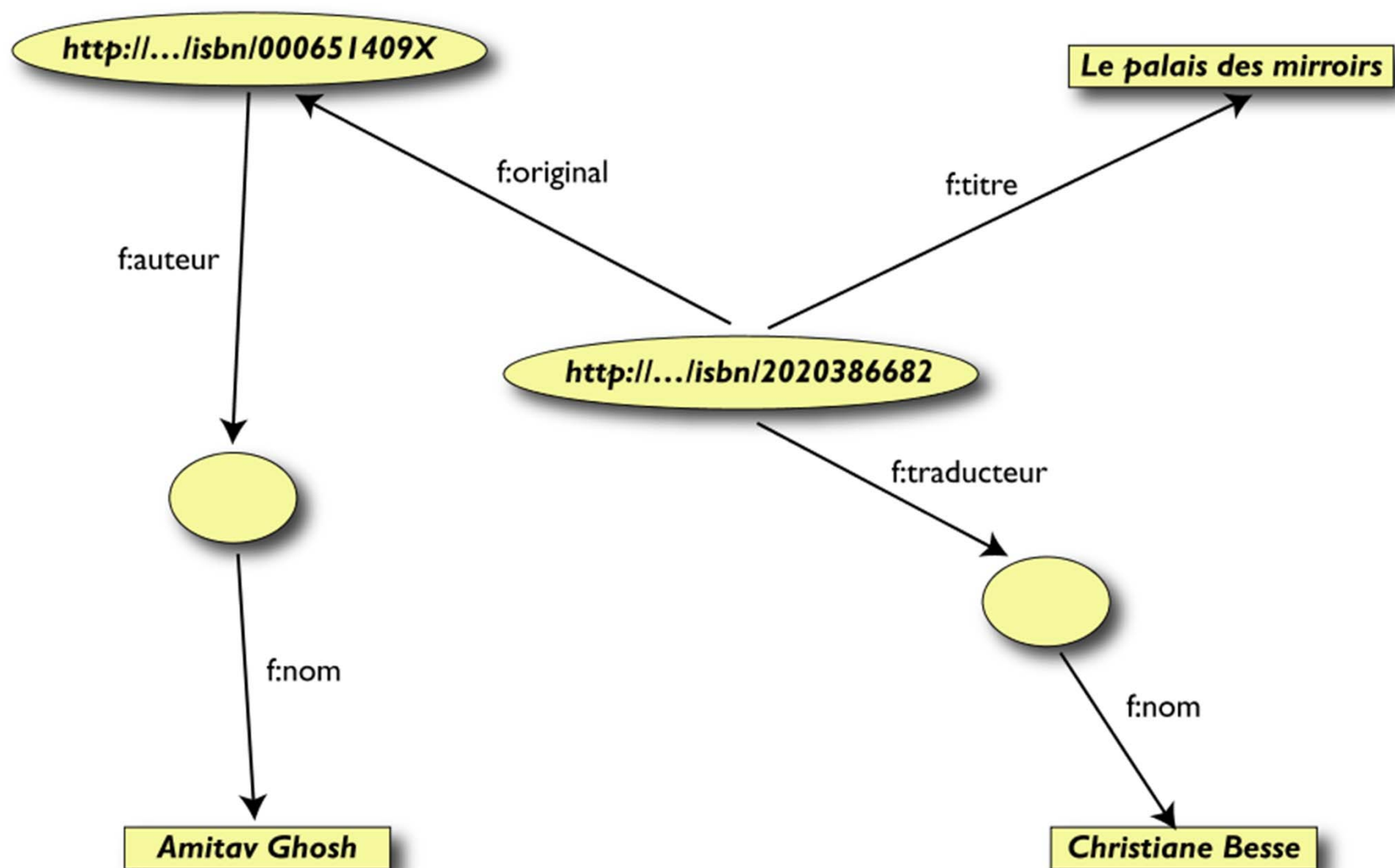
Another bookstore data (dataset “F”)

ID	TITLE	TRADUCTER	ORIGINAL
ISBN-02-05668976-Y	The palais des miroirs	A13	ISBN-00-0651049-X

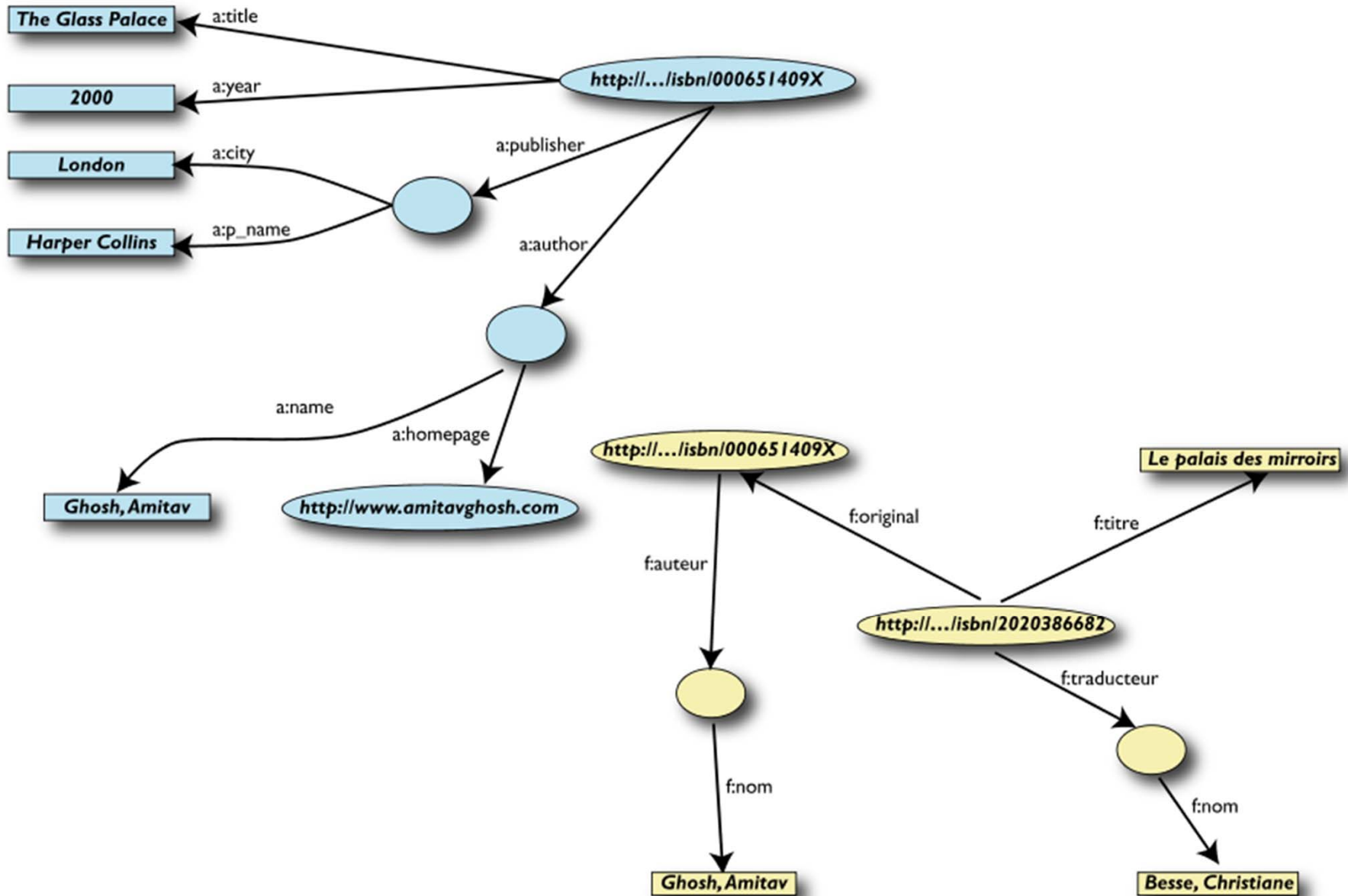
ID	AUTEUR
ISBN-00-0651049-X	A12

ID	NOM
A12	Amitav Gosh
A13	Christianne Bess

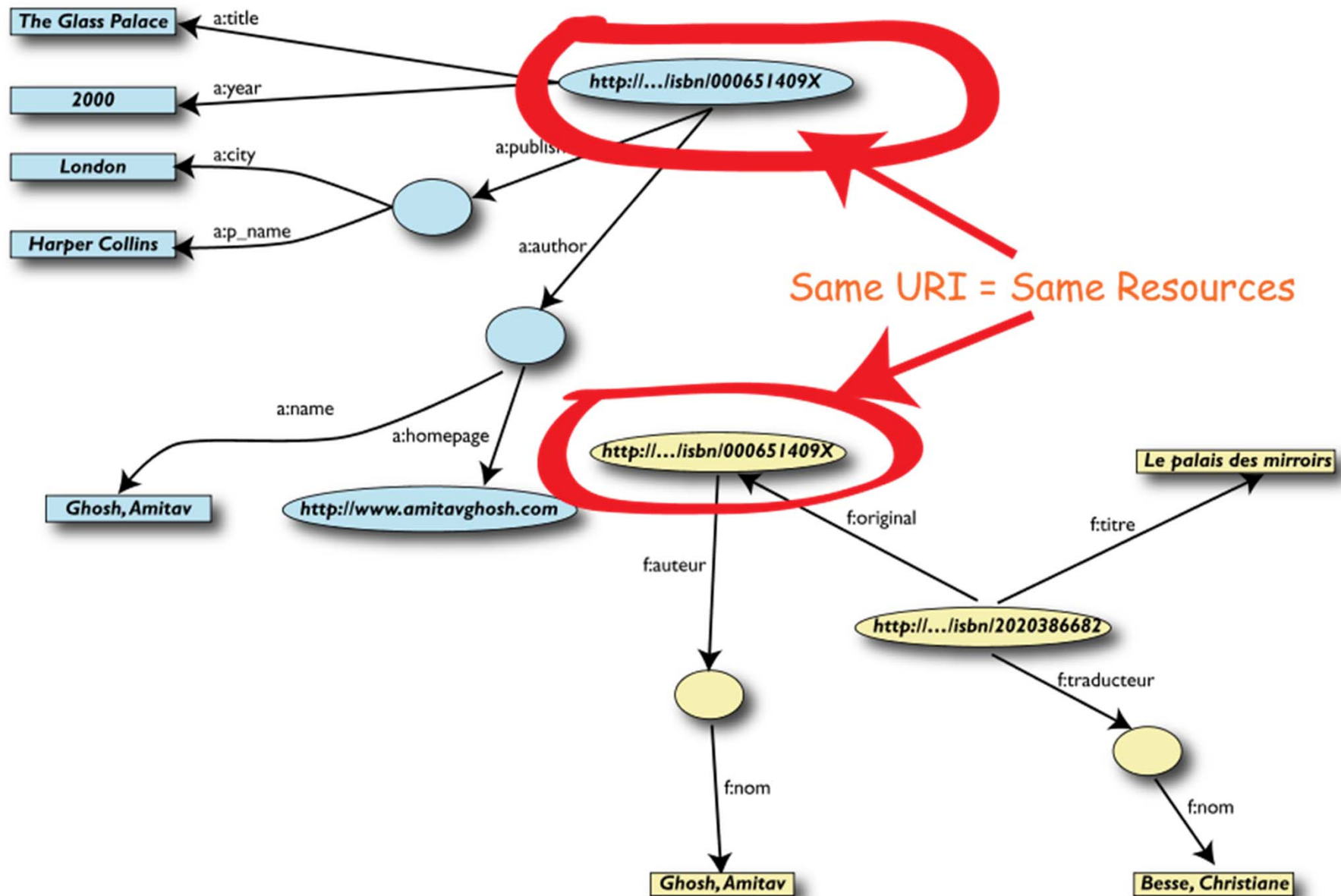
2nd: export your second set of data



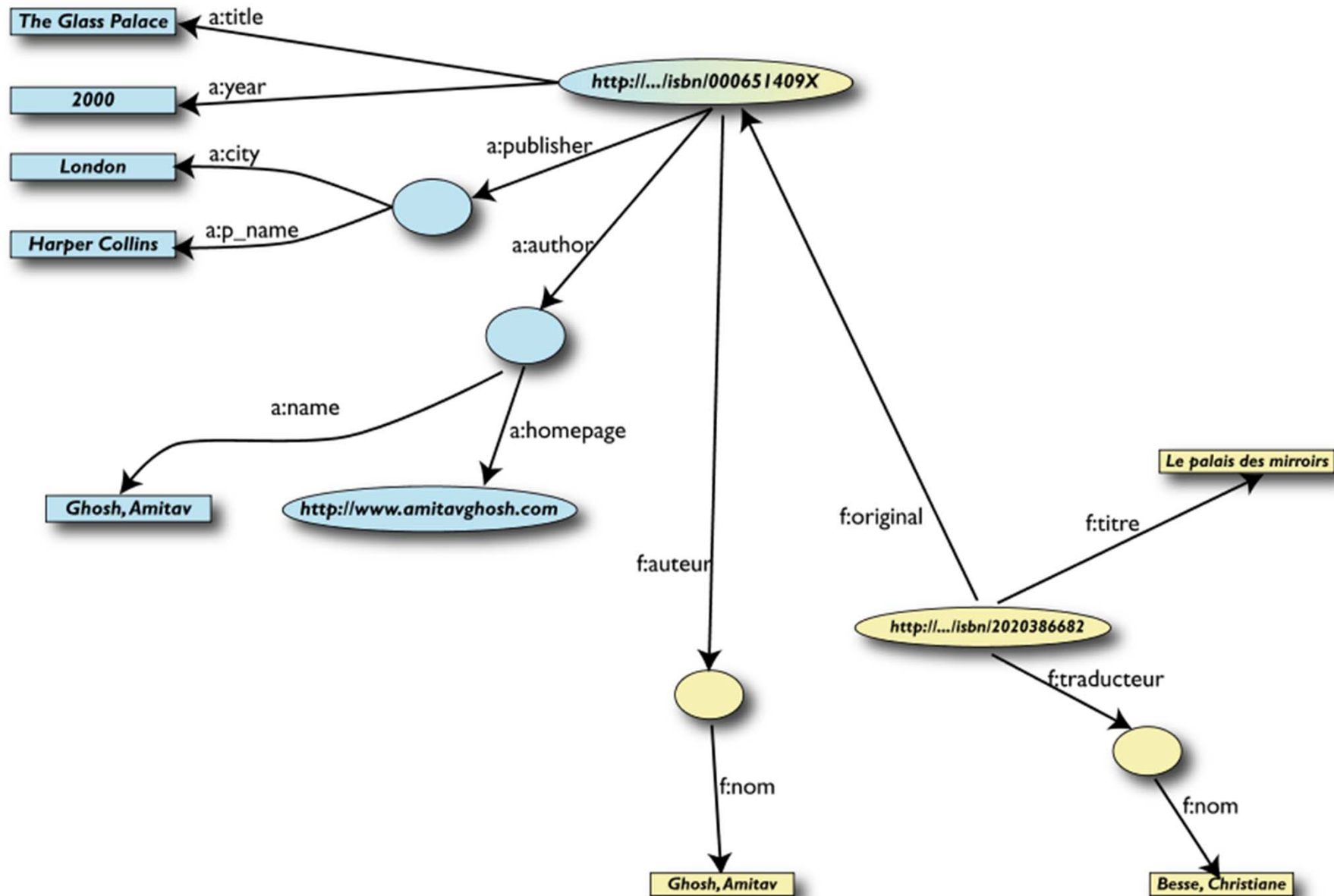
3rd: start merging your data



3rd: start merging your data (cont.)

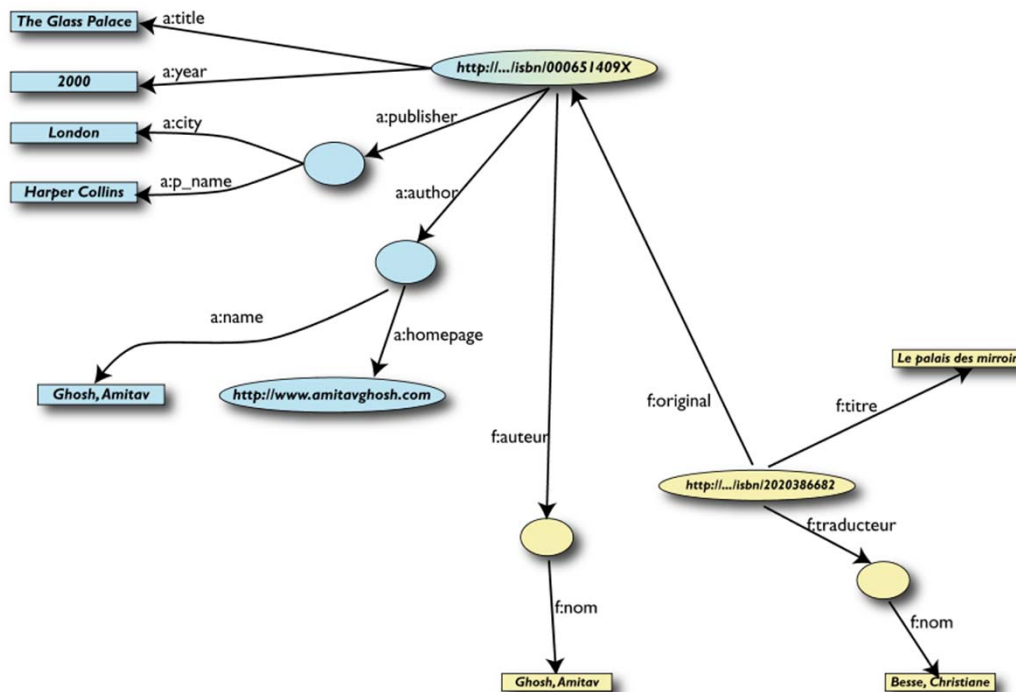


3rd: merge identical resources



Start making queries...

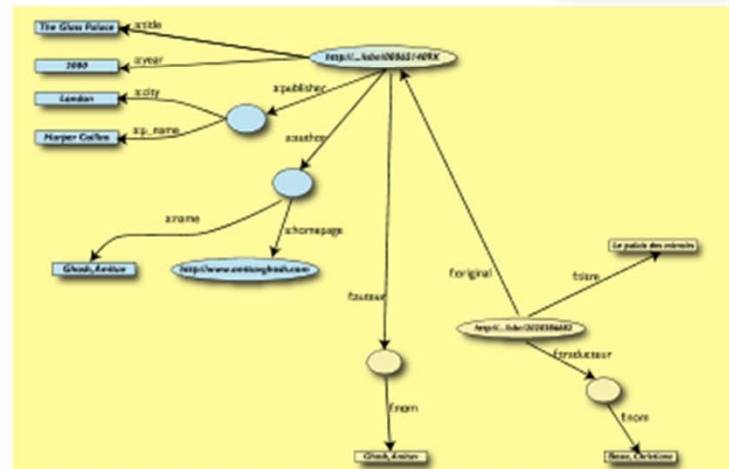
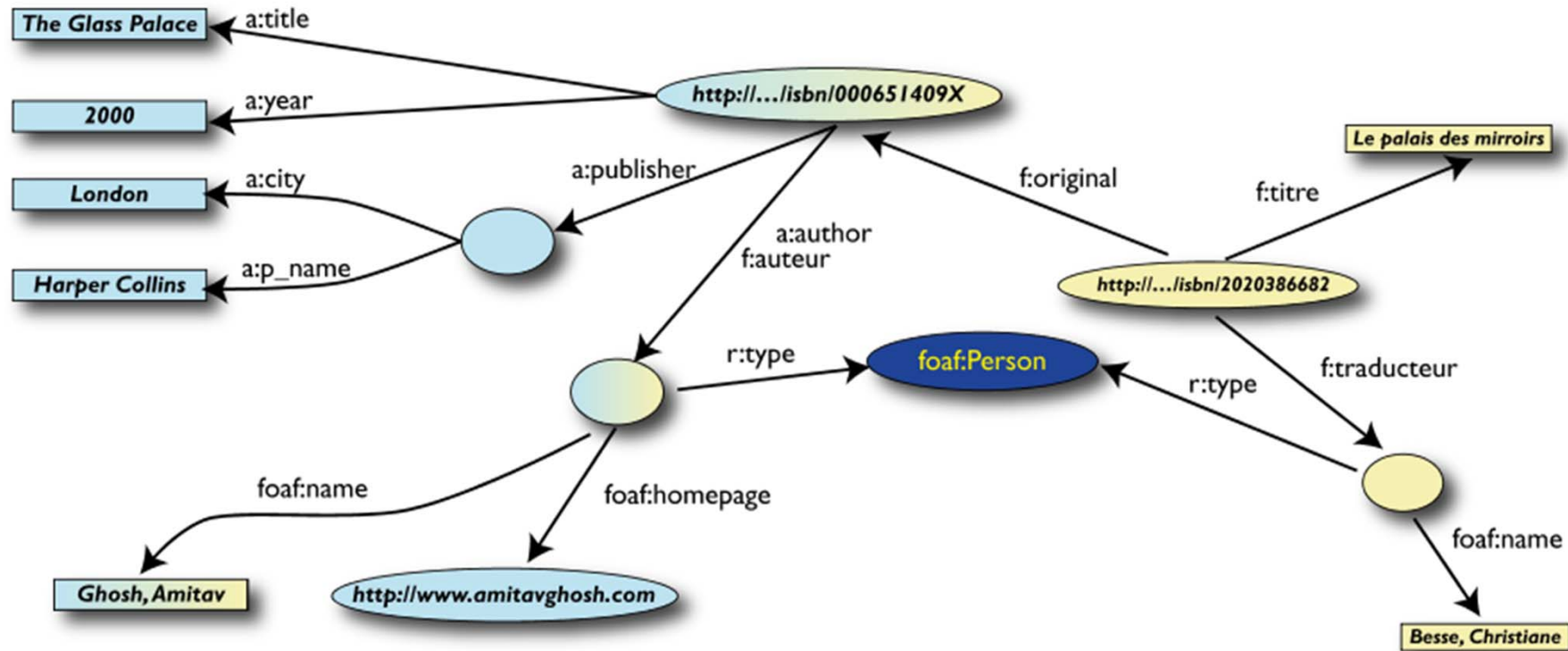
- User of data “F” can now ask queries like:
 - “give me the title of the original”
 - well, ... “donnes-moi le titre de l’original”
- This information is not in the dataset “F”
- but can be retrieved by merging with dataset “A”!



However, more can be achieved...

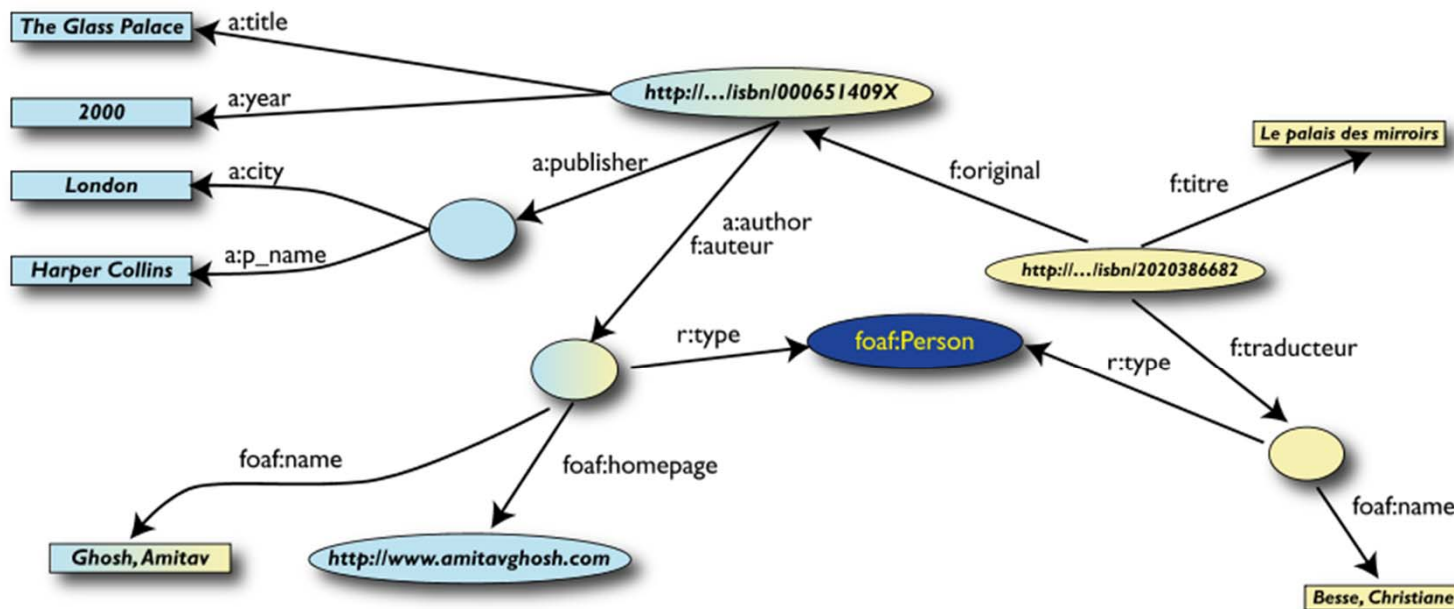
- We “feel” that a:author and f:auteur should be the same
- But an automatic merge does not know that!
- Let us add some extra information to the merged data:
 - a:author same as f:auteur
 - both identify a “Person”
 - a term that a community may have already defined:
 - a “Person” is uniquely identified by his/her name and, say, homepage
 - it can be used as a “category” for certain type of resources

3rd revisited: use the extra knowledge



Start making richer queries!

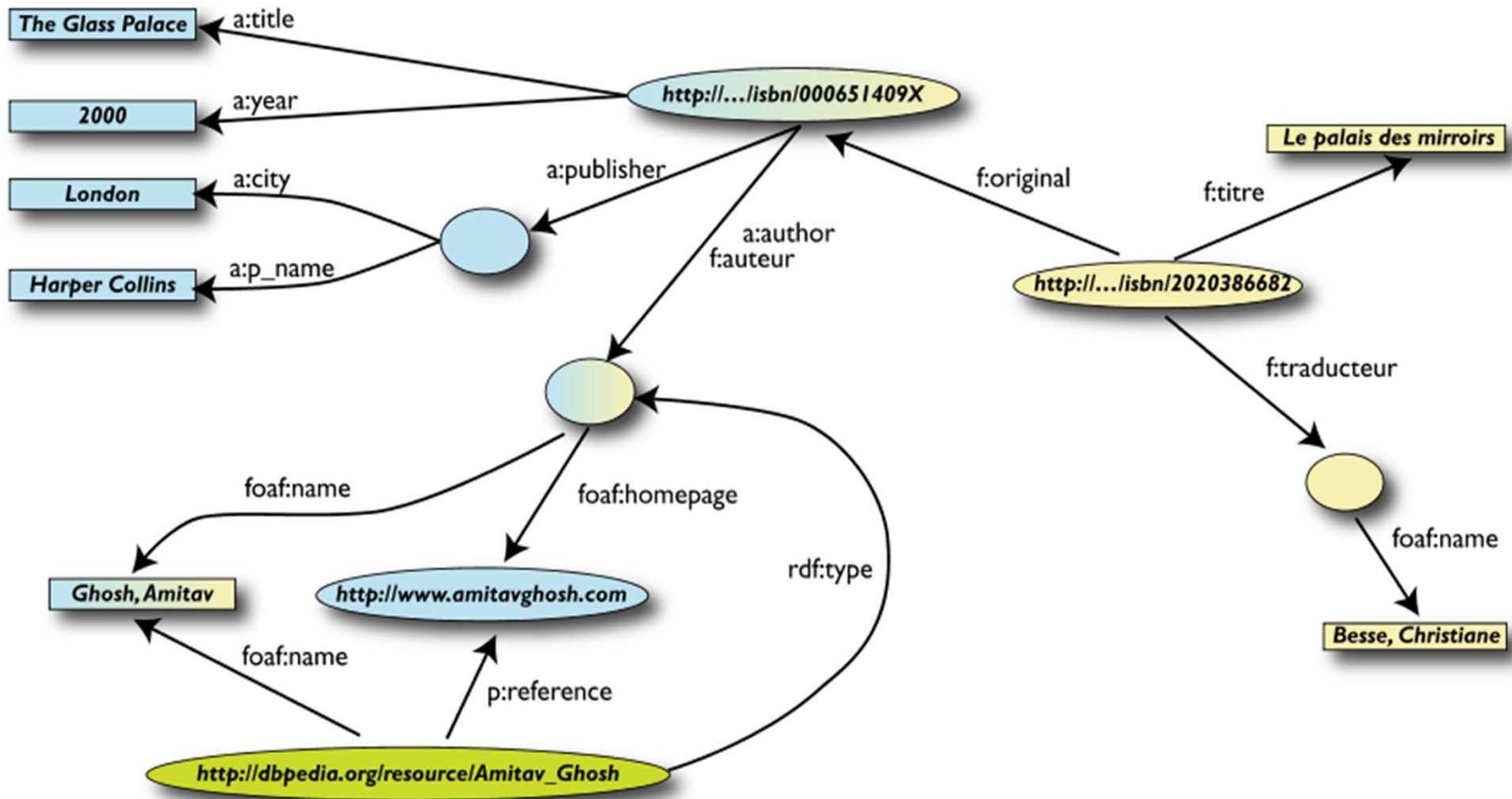
- User of dataset “F” can now query:
 - “donnes-moi la page d’accueil de l’auteur de l’originale”
 - well... “give me the home page of the original’s ‘auteur’”
- The information is not in datasets “F” or “A”...
- ...but was made available by:
 - merging datasets “A” and datasets “F”
 - adding three simple extra statements as an extra “glue”



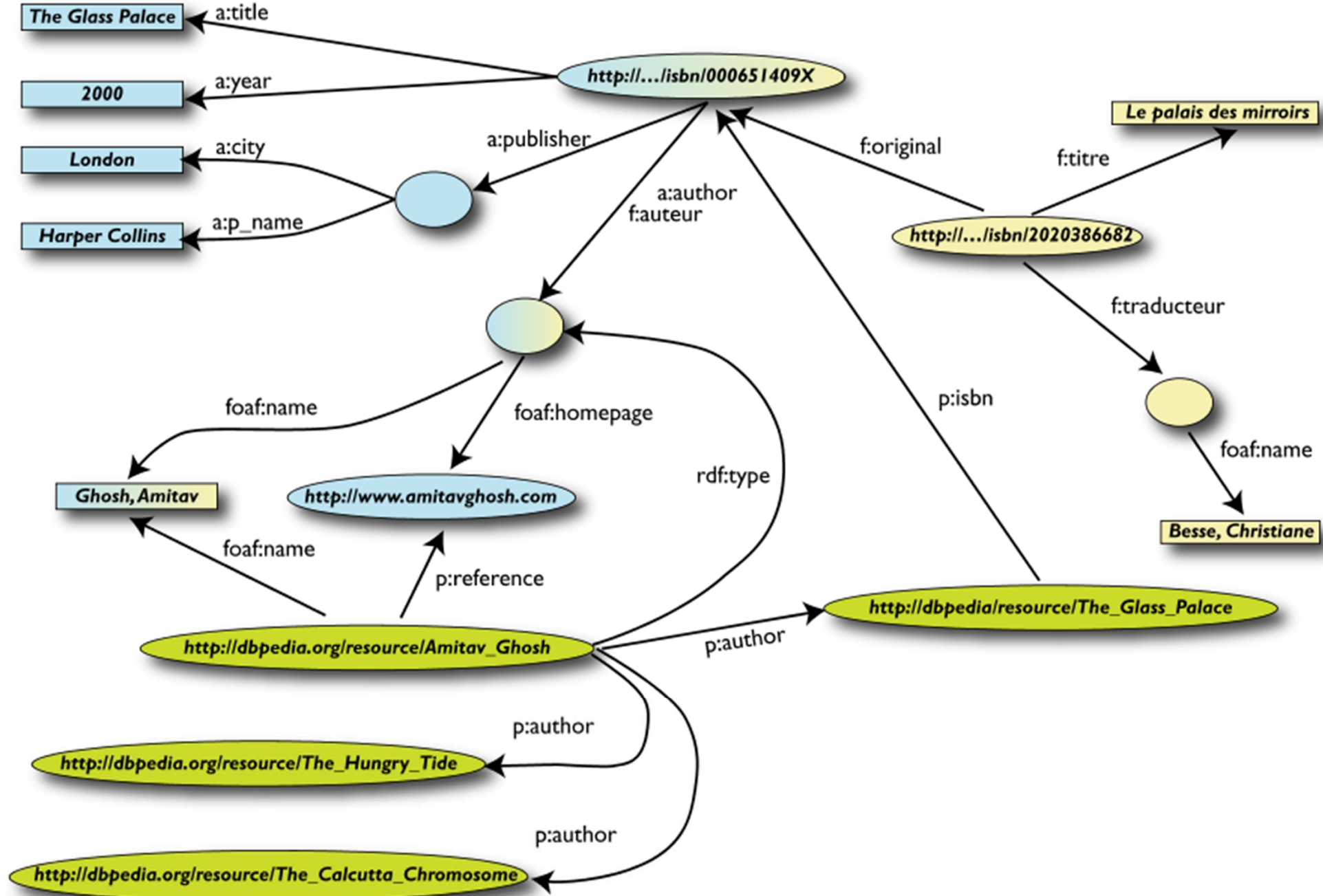
Combine with different datasets

- Using, e.g., the “Person”, the dataset can be combined with other sources
- For example, data in Wikipedia can be extracted using dedicated tools
 - e.g., the “[dbpedia](#)” project can extract the “infobox” information from Wikipedia already...

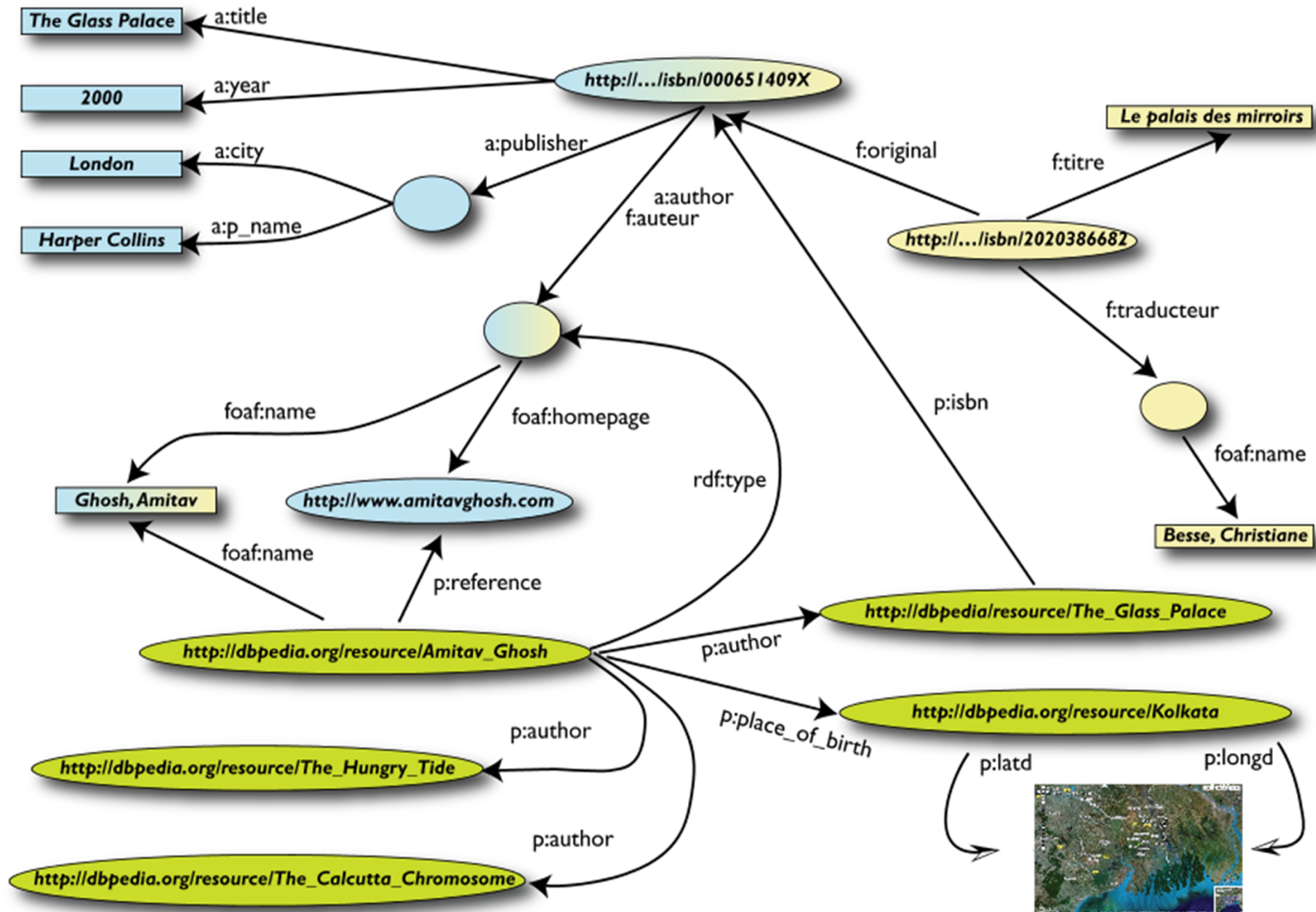
Merge with Wikipedia data



Merge with Wikipedia data



Merge with Wikipedia data



Is that surprising?

- It may look like it but, in fact, it should not be...
- What happened via automatic means is done every day by Web users!
- The difference: a bit of extra rigour so that machines could do this, too

What did we do?

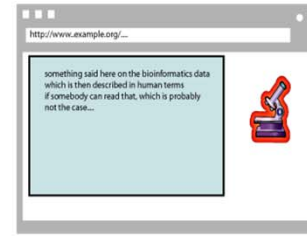
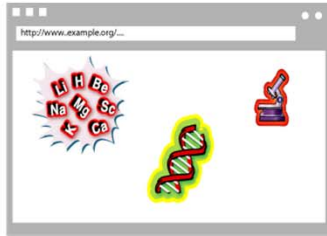
- We combined different datasets that
 - are somewhere on the web
 - are of different formats (mysql, excel sheet, XHTML, etc)
 - have different names for relations
- We could combine the data because some URIs were identical (the ISBN-s in this case)
- We could add some simple additional information (the “glue”), possibly using common terminologies that a community has produced
- As a result, new relations could be found and retrieved

It could become even more powerful

- We could add extra knowledge to the merged datasets
 - e.g., a full classification of various types of library data
 - geographical information
 - etc.
- This is where ontologies, rules, etc, come in
 - ontologies/rule sets can be relatively simple and small, or huge, or anything in between...
- Even more powerful queries can be asked as a result

What did we do? (cont)

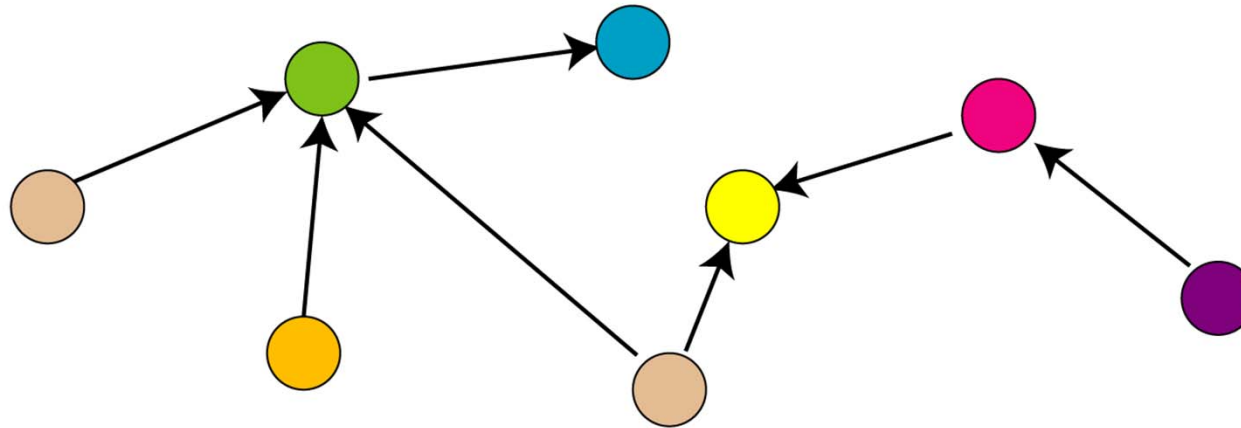
SPARQL



Applications

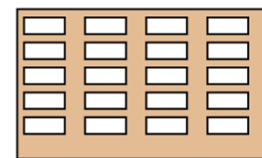
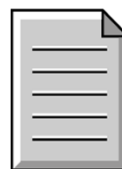
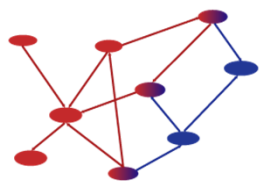
Query,
Manipulate,
etc.

RDF
RDFS



Data represented in abstract format

Map,
Expose,
etc.



Data in various formats

The Basis: RDF

- Let us begin to formalize what we did!
 - we “connected” the data...
 - but a simple connection is not enough... data should be named somehow
 - hence the RDF Triples: a labelled connection between two resources

Essential Online Resources

- <http://www.w3.org/TR/html4/>
- <http://www.w3.org/Addressing/>
- <http://www.w3.org/Style/CSS/>
- <http://validator.w3.org/>
- <http://www.w3.org/>