



Decentralized Online Social Networks

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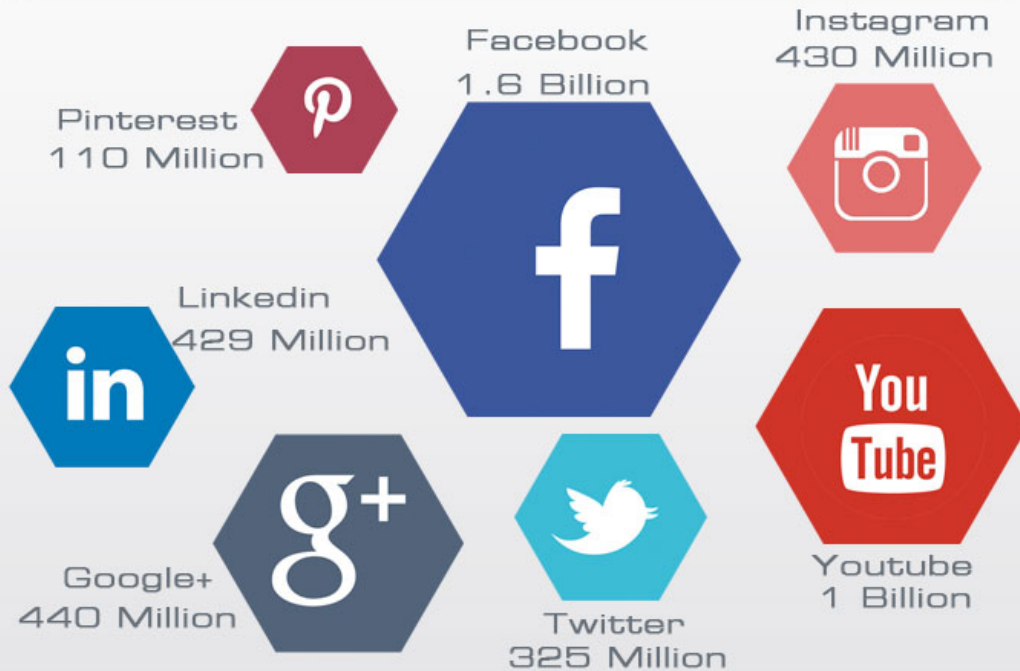
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Online Social Networks

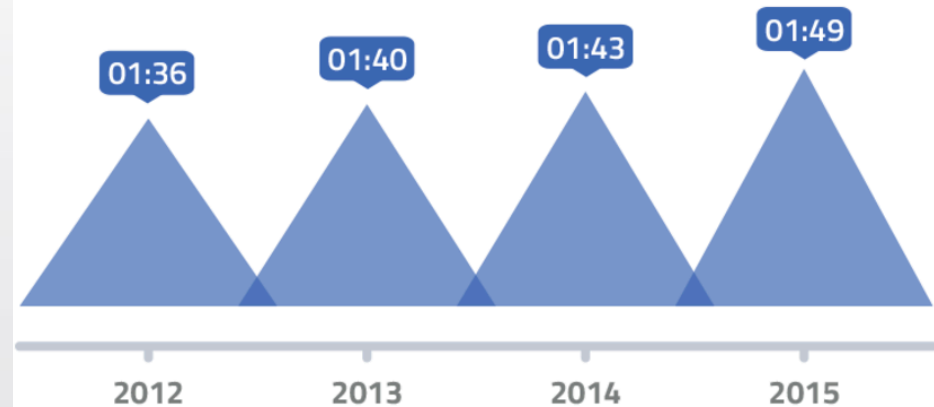
Online Social Networks (OSNs) have gained significant popularity and are now the most popular visited sites on the Web.

Social Media Users 2016



TIME SPENT SOCIAL NETWORKING

Daily Average (Hours : Minutes)



Online Social Networks

Facebook is still violating user's privacy.

- Facebook has been fined by France's privacy watchdog for violating the country's data protection rules.
- The Dutch Data Protection Authority (DPA) said that Facebook provides users with **“insufficient information about the use of their personal data”** in violation of Dutch data protection law.
- Parallel investigations in Germany and Spain.

With all of the concerns over who controls the “Social Web” – regarding the Google+ name policy and other privacy issues, Facebook's questionable ethics, and the overall danger of controlled networks. I think it is extremely important for a **more decentralized, more democratic, more open, and more free solution to succeed in the interest of personal freedom on the internet.** And it looks to me like Diaspora is an essential part of that solution, so I'm endorsing it now, even though it's not entirely “ready”

Hancock, Terry . "Why You Should Join Diaspora Now, Like Your Freedom Depends On It". Free Software Magazine.
Retrieved 30 September 2011.



Distributed Online Social Networks

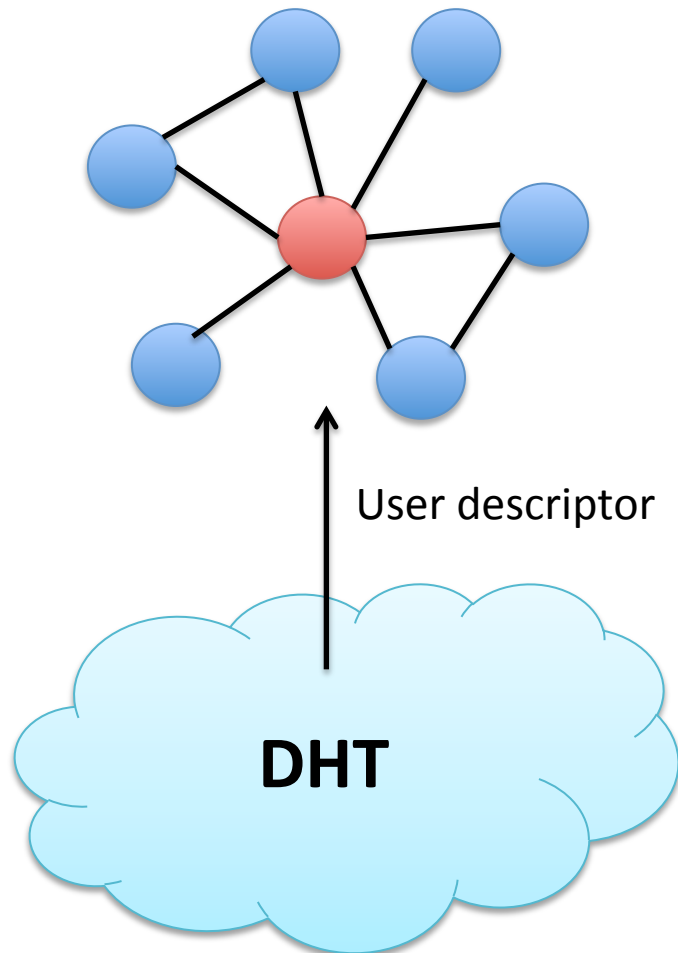
- A **Decentralized Online Social Network** (DOSN) is an online social network implemented on a distributed platform.
 - Usually implemented on P2P architectures
 - Scalability
 - Control over private data

diaspora*

 **friendica**

Our first DOSN proposal

DiDuSoNet



We model the social graph of user by using a well-known social network model named **Ego Network**

The profile of peers are replicated on a set of peers chosen among peers in the ego network

We use a trusted approach based on the Dunbar's Number

DHT provides a secure storage layer and a look-up service

DHT stores only information about Trusted Replica of Users

DOSNs: our studies and proposals

What we did in this fields?

- DiDuSoNet
- DiSoNet
- Several study related to data allocation
- Temporal human behaviour in OSNs



How we did our studies?



Social Circles
Facebook
Application

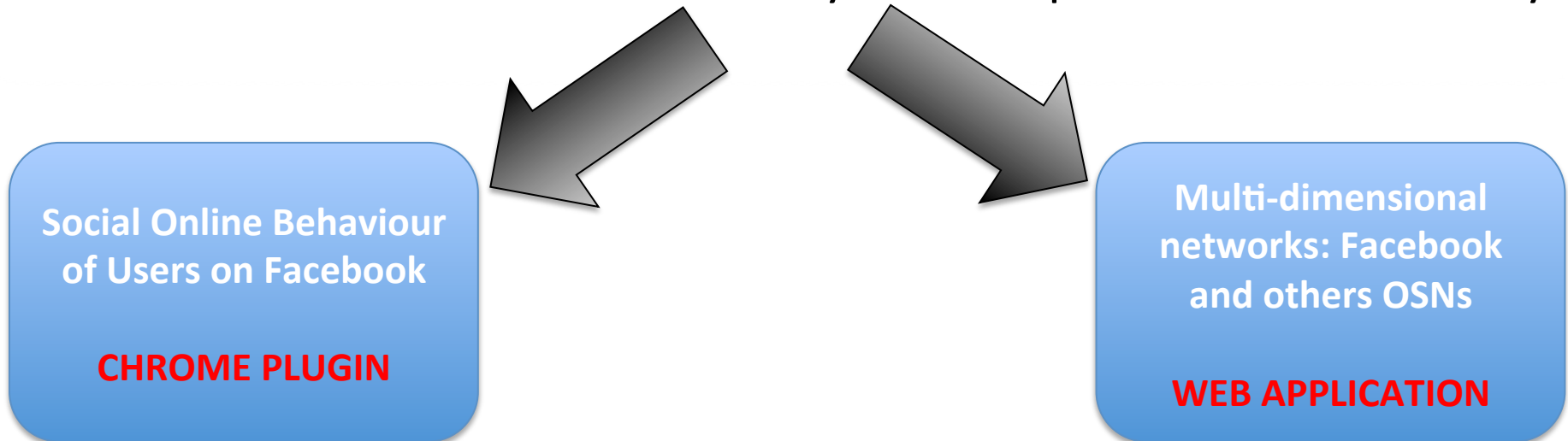
Available on Facebook until May 2015

- More than 400 users: Italy, 270; Germany, 12; United States, 11; United Kingdom, 10; Mexico, 6; Brazil, 5; Sweden, 5; Denmark, 5; Australia, 5; Spain, 5; New Zealand, 5; India, 3; Czech Republic, 3
- Data gathered:
 - Profiles: personal information, music pages, movie pages, books pages, ...
 - Interactions: comments, posts, likes, ...
 - Online chat status of more than ... Users monitored for 10 consecutive days
- Today:
 - We are working with the second dataset gathered with the application
 - 240 users
 - Online chat status for 32 consecutive day every 5 minutes

DOSNs: our envision

We could model the real social world only by studying the real social world

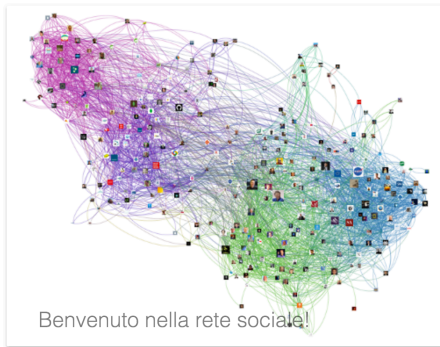
DOSNs are built on users and these systems depend on users' activity



SocialGraph: the web application

SocialGraph* helps us to model multi-dimensional networks by gathering information from **Facebook**, **Twitter**, and **Instagram*

☰ SocialGraph: la mappa sociale



Cos'è SocialGraph...

SocialGraph è una fantastica tecnologia che si fa i cavoli tuoi, perciò in pratica... Vogliamo i tuoi dati, ciccio!

REGISTRATI

<https://social.di.unipi.it>

Riservatezza Contatti

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Thank
You!

