Hackers and philosophers building an utopia together

participatory and altruistic network of the future

by Vesna Manojlovic, 01 December 2012, http://becha.home.xs4all.nl/

Just like 1988, when the International Telecommunications Regulations (ITRs)[1] were written by the International Telecommunications Union (ITU)[2] and did not even have a mention of the name **Internet**, so this year the ITU is going to write new ITRs at WCIT without mentioning the name of a new emerging network: **FreeNet**, **DarkNet**, **MeshNet**, **OpenNet**; **Peer to Peer** or **Friend to Friend**.

Internet governance of today is based on multi-stakeholder model of cooperation between not-for-profit organizations such as IETF,[3] ISOC,[4] ICANN,[5] W3C;[6] businesses, civil society and governments.[7]

What will the new network look like? Like a MESH: Multi-Equal Stake-Holders ☺

1. http://www.itu.int/ITU-T/itr/
2. https://www.whatistheitu.org/
3. http://Ietf.org
4. http://Isoc.org
5. http://Icann.org
6. http://W3.org
7. http://www.intgovforum.org

There is a big effort put in defending of the existing freedoms of the Internet against ITU, by the current Internet governance bodies, and users, for example: protectinternetfreedom.net

What's in the name?

FreeNet
http://en.wikipedia.org/wiki/Freenet

Freenet is a peer-to-peer platform for censorship-resistant ommunication. It uses a decentralized distributed data store and a suite of free software.

Freedom Box
http://www.freedomboxfoundation.org/

FreedomBox is a community project to develop, design and promote personal servers running free software for distributed social networking, email and audio/video communications.

Free Network
http://thefnf.org/

"We envision communications infrastructure that is owned and operated cooperatively, by the whole of humanity, rather than by corporations and states."

Darknet
http://en.wikipedia.org/wiki/Darknet_%28file_sharing%29

"A darknet is a private, distributed P2P file sharing network where connections are made only between trusted peers"

Tor
https://www.torproject.org

"Tor is free software and an open network that helps you defend against a form of network surveillance that threatens personal freedom and privacy..."

Meshnet
http://en.wikipedia.org/wiki/Meshnet

A decentralized peer-to-peer network, with user-controlled physical links.

Open Net – Open Wireless
https://openwireless.org/

"inspire a movement of Internet openness... while maintaining security, protecting privacy, and preserving quality of access." And why:

https://www.eff.org/deeplinks/2012/10/why-we-have-open-wireless-movement

Peer to peer
http://p2pfoundation.net/

"Towards an Open and Autonomous Internet and Society"

Friend to Friend
http://en.wikipedia.org/wiki/Friend-to-friend

"a free software framework for decentralized, peer-to-peer networking"

Each society gets the ~~government~~ Internet it deserves

The Internet is more then a telecommunications network. Some consider it a critical infrastructure[8] or a basic human right[9] or an idea.[10]

For me, the Internet is an embodiment of the idea of society; a collection of connections between individuals. Therefore, for me the question about the future of the Internet governance leads to the question of what the ideal future society looks like.

My ideal society model , and therefore my ideal future of the Internet is PARTICIPATORY ALTRUISM.

Altruism (for me) means **sharing** of the common resources (instead of redistribution of value based on some other criteria, like profit and costs), preferring **cooperation** over competition, holding the **common benefit** higher then the personal (or corporate!) benefit, and making sure to find solutions that meet both personal and common needs, while presuming **reciprocity** (that the others will have the same preferences), and presuming the **ABUNDANCE** mentality, instead of scarcity. See altruists.org

Participatory means that every individual is striving for **self-sufficiency**; is responsible for meeting their own needs, and not delegating the **personal responsibility** to the governors and regulators, and not depending on providers of services. This means that people are not consumers, but active **contributors** in all spheres of their lives. This is also presuming **ABUNDANCE** and **ALTRUISM**.

Abundance: "a concept in which a person believes there are enough resources and success to share with others"[11]

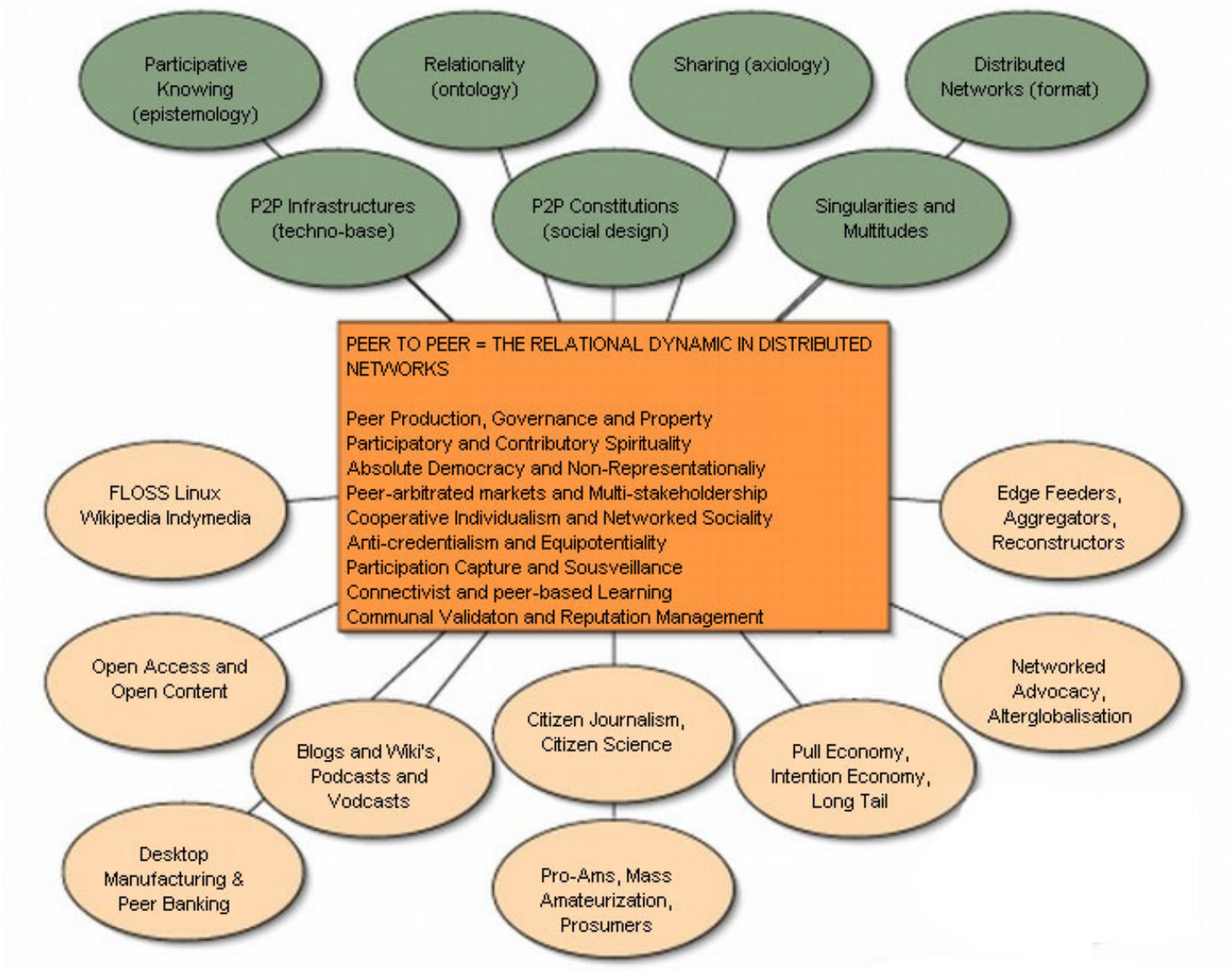
This is a dance between the opposing powers of Yin and Yang, an attempt to find a balance between extreme individualism and complete collectivism.

In other words, Internet sounds very much like Anarchism: [12]
"stateless ~~society~~ *network* based on non-hierarchical voluntary associations".
There is a lot of **theory** written about this:

- Towards an Open and Autonomous Internet and Society [13]
- Gert Lovink [14]
- The Master Switch: Tim Wu
- Cognitive Surplus: Clay Shirky

And there is a lot of utopist, or dystopia **fiction** about it, my favorite being "Dispossessed" [15] and "Little Brother"[16].

8. http://ec.europa.eu/information_society/policy/nis/strategy/activities/ciip/index_en.htm
9. http://en.wikipedia.org/wiki/Right_to_Internet_access
10. http://frankston.com/public/?name=InternetAsInfrastructure
11. http://en.wikipedia.org/wiki/Abundance_%28economics%29
12. http://en.wikipedia.org/wiki/Anarchism
13. http://p2pfoundation.net/Autonomous_Internet_Road_Map
14. http://five.fibreculturejournal.org/fcj-029-dawn-of-the-organised-networks/
15. http://en.wikipedia.org/wiki/Dispossessed
16. http://en.wikipedia.org/wiki/Little_Brother_%28Cory_Doctorow_novel%29



source: http://p2pfoundation.net/P2P_Meme_Map

ISPs are the new Telcos

History is repeating itself: just like in the '80 we have built a new network (named the Internet in '82) by repurposing the existing telecommunications network (PTSN) and using the new open standards (TCP/IP), so are we today building an even newer network by repurposing the existing ISP network and using the even newer open standards — **mesh networking**.

Both then and now the reasons were the same; we need freedom, we value sharing, we want independence. We want to escape the censorship and surveillance by governments and corporations, we do not want that monopolies to set the price, we do not want centralized, hierarchically regulated providers of pre-defined services.

In the news:

September 18, 2011: **Fear of Repression Spurs Scholars and Activists to Build Alternative Internets** https://chronicle.com/article/College-20-Fear-of/129049/

February 15, 2011: **Decentralizing the Internet So Big Brother Can't Find You** http://www.nytimes.com/2011/02/16/nyregion/16about.html?_r=2&

Meshnets are new BBSes

"versatile, decentralized network built on secure protocols for routing traffic over private mesh or public internetworks independent of a central supporting infrastructure"

Again, history is repeating itself: we started using the "Internet" by connecting to BBS-es: Bulletin Board Systems, local hubs that used very slow (PTSN) connections, and had not many links to the other networks. Mesh-networks of today are on that level. Although they offer much less performance-wise then the "Internet", they do empower their users to have truly free communication, control over their own machines, systems and infrastructure; they offer and sometimes demand strong security and anonymity; they encourage culture of sharing: sharing resources, skills, knowledge; they depend on voluntary cooperation of all active participants.

There are lots existing meshnets:
- Wireless-Leiden http://www.wirelessleiden.nl
- Fuerfunk http://start.freifunk.net/
- http://djurslands.net/
- Wireless.org.au http://wireless.org.au/
- guifi.net http://guifi.net

They are well described in Wikipedia:
http://en.wikipedia.org/wiki/Wireless_community_network
http://en.wikipedia.org/wiki/Wireless_mesh_network
... and they have their own conferences, among others Wireless Summit http://wirelesssummit.org/

In the news:

... and their successes are mentioned in many news articles & blogs:
- http://wlan-si.net/en/blog/2012/10/10/we-are-internationally-wireless/
- http://penumbralreport.com/2012/01/04/darknet-rising-a-private-secure-and-anonmyous-meshnet-is-emerging/
- http://askthecomputerguy.com/opinions/dark-net-101/
- http://arstechnica.com/information-technology/2011/11/the-darknet-plan-netroots-activists-dream-of-global-mesh-network/

Running Code

(quote from IETF motto: *"... we believe in rough consensus and running code"*)

There are lots of software and firmware components written by free & open-source community: for mesh networking

Quick Mesh project
http://qmp.cat/

OLSR
www.olsr.org

Open-Mesh project
http://www.open-mesh.org/projects/open-mesh/wiki/WikiStart

OpenWrt
https://openwrt.org/

Project Mesh Net
https://projectmeshnet.org/

Commotion
https://code.commotionwireless.net/projects/commotion/wiki/Mesh_Networks

There are social networks based on these principles:
"Sovereign Peer-to-Peer"
http://sneer.me/
and diaspora*
https://www.joindiaspora.com/
http://en.wikipedia.org/wiki/Diaspora_%28social_network%29

Hackers in space

source: http://wiki.techinc.nl/index.php/Propaganda

I personally got involved in making the new Internet through the hackers conferences and hackerspaces.

Hackers conferences are the grassroots events organized by the individuals that agree to cooperate with each other on the completely voluntary, un-institutionalized, ad-hock bases. The biggest and the oldest in Europe are the CCC congresses, organised once a year in Germany (this winter will be the 29th edition).[17] 3-day long meeting with talks, workshops and discussions on topics of "hacking": HW and SW security, Internet freedoms, (digital) human rights, innovation, new technologies, and impact on the society.

17. https://events.ccc.de/congress/2012/wiki/Main_Page

There are also week-long outdoor events: every 4 years in Germany, and every 4 years in Holland: in the last 15 years I went to 7 of them; and there are other ones around the world.
Last summer at the ex-military airport near Berlin we talked about launching hackers-owned communications satellites, and having a hackers space program to put the first hacker on the moon by 2034![18]

18. http://events.ccc.de/camp/2011/Fahrplan/events/4551.en.html

Next summer we will continue with this in Holland, at OHM: Observe, Hack, Make[19]

19. https://ohm2013.org/site/

At 28c3 I took part in the workshop about free network architectures[20] and in altruism workshop[21] – there I got the basis for the ideas for this article.

20. http://blogger.xs4all.nl/becha/archive/2012/02/05/731625.aspx
21. http://blogger.xs4all.nl/becha/archive/2012/01/17/724414.aspx

Hackerspaces are the vortex where like-minded people collect to work together, share resources (tools, space, infrastructure) and knowledge. This leads to exchange of ideas, and innovation: sharing the same space allows for interactions we can not anticipate. Last year I took part in co-creating **Amsterdam Hackerspace** "Technologia Incognita"[22] and I visited many other hackerspaces in Europe.[23]

22. http://Techinc.nl
23. http://blogger.xs4all.nl/becha/archive/2013/01/13/802607.aspx

Currently, mesh networks are isolated from each other. Hackers and philosophers are working to make it into a global network (for example Hyperboria)[24] and we need **YOU** to take part in it! Join us, learn and share, build on the foundations of the idea of the Internet and participate in the next open and altruistic network!

24. http://hyperboria.net/

You can **participate** in building the "new Internet":

- Take part in a **mesh-net**
- Come to one of the **hackers conferences** and campings
- Become a **member of a local hackerspace** – you can find them all at hackerspaces.org.[25]

25. http://hackerspaces.org

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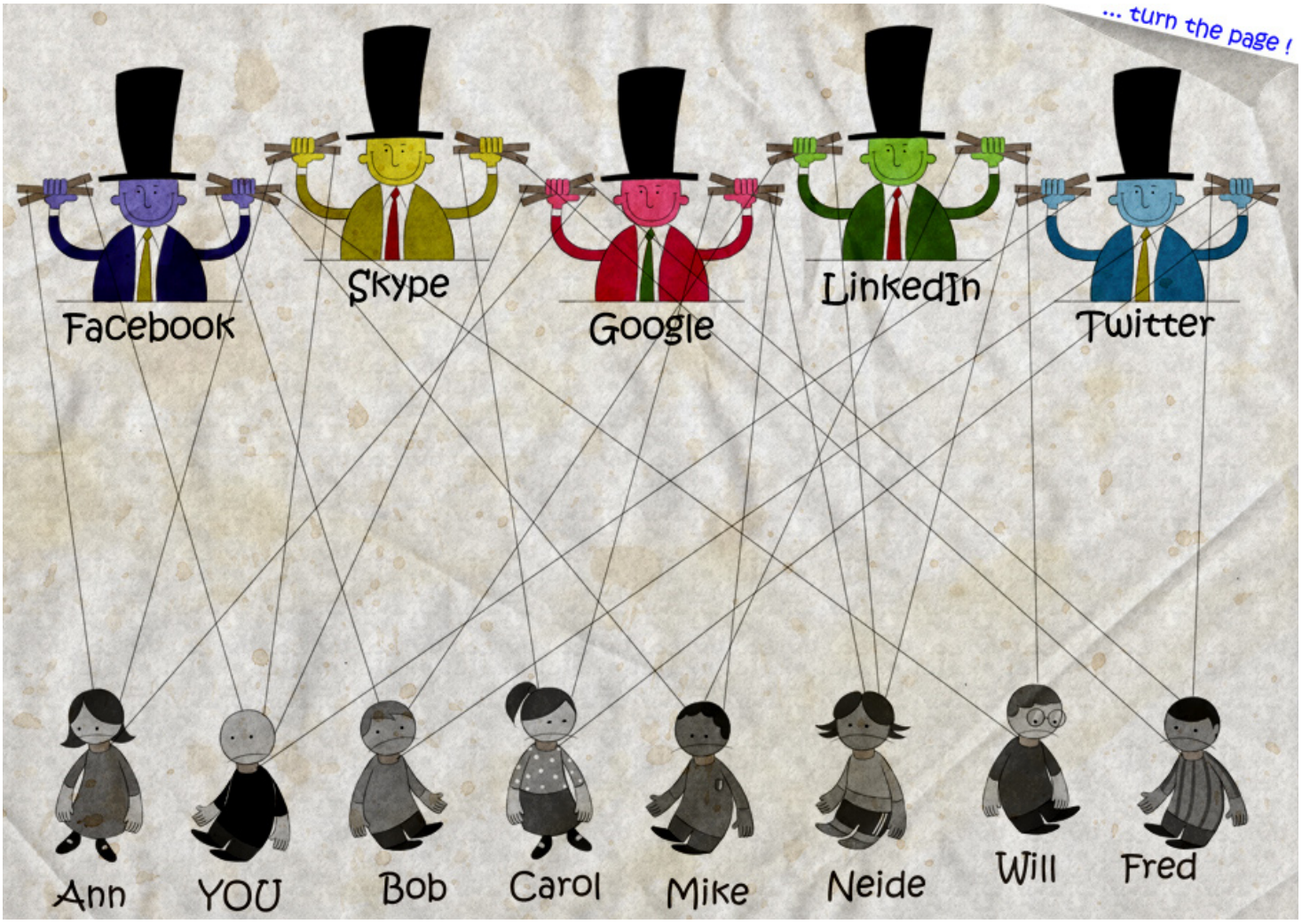

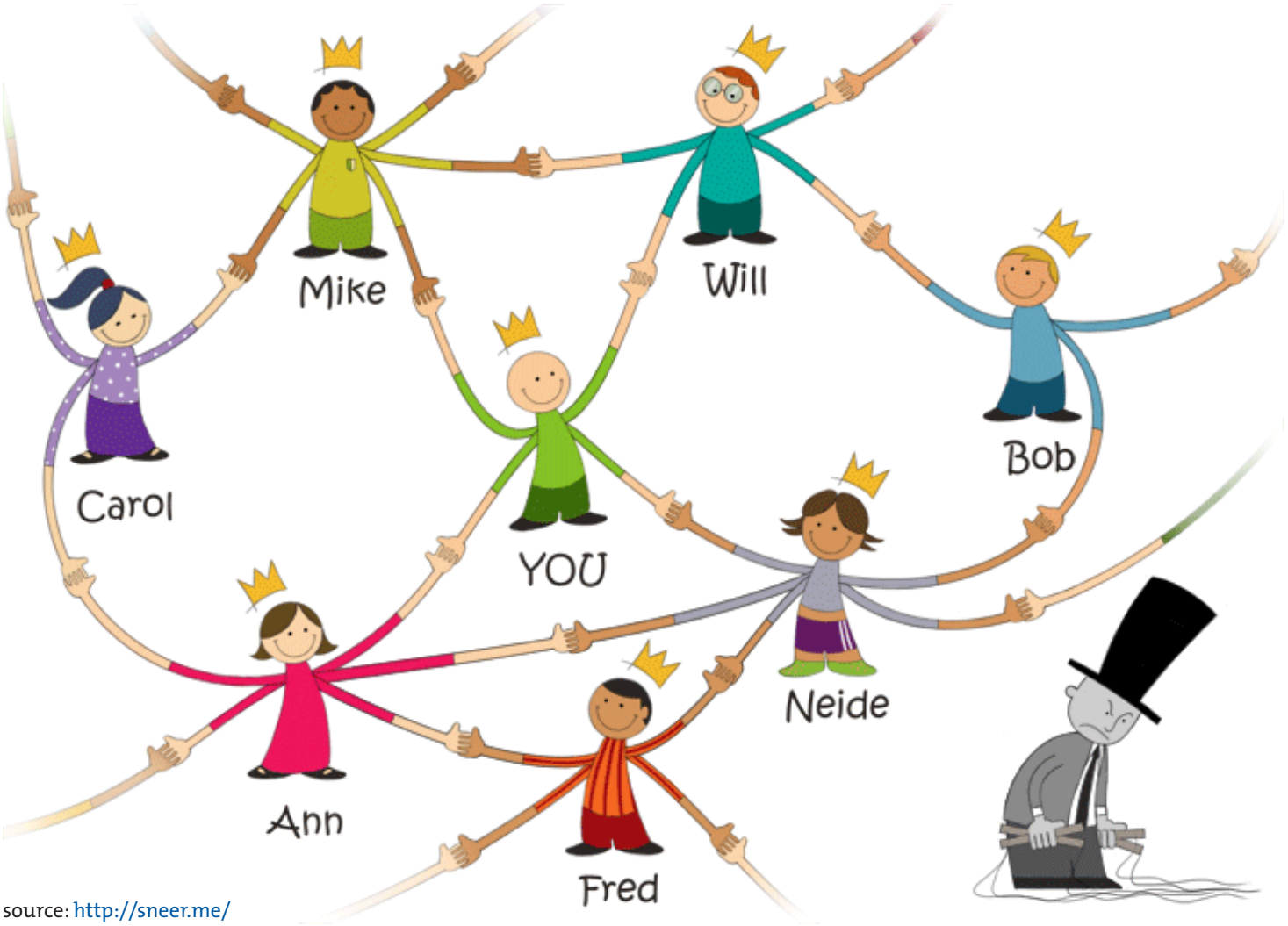

source: http://sneer.me/