Collective Individuation: A New Theoretical Foundation for the Social Web

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Abstract: Despite their increasing ubiquity on the Web, there is no fundamental philosophical theory of social networking, and we believe this has limited the technical development social networking to very limited use-cases. We attempt to develop a theoretical discourse on the new generation of social networks and to develop software prototypes for an alternative. Our project centers on the question: what is collective intelligence? Current social networking websites and network-science are based on individuals as the basic analytic unit, with social relationships as simple "ties" between individuals. In contrast, this project wants to approach even individual humans as fundamentally shaped by their collective social relationships, building from Stiegler's insight that individuation is always simultaneously psychological and collective. Our proposal should enable new kinds of high-security and private social networks where the basic unit is the collective project.

1. Facebook and the Problem of Individuation

    a) <u>The Origin of Social Networks: St. Simon and Moreno</u>

One of the emerging research areas of Web Science is the attempt to analyze social networks in terms of network theory as it directly descends from sociology. Under the traditional sociological use of graph theory, individuals are considered nodes and their social relationships mapped to edges. In its entirety, a network can be seen as the representation of certain social relations. Yet where did this entire conception come from?

J. L. Moreno(1889-1974), a psychologist and founder of sociometry was one of the first sociologists to demonstrate the value of graph-theoretic approaches to social relationships. The most-often quoted example is Moreno's work at the New York State Training School for Girls in Hudson, where run-away cases were more than 14 times than the norm! Moreno identified it as a consequence of the particular network of social relationships amongst the girls in the school via the creation of sociological surveys that helped him "map the network", and then he used the self-same model to propose another allocation plan that successfully reduced the number of run-away. So the function of social network is not one of mere representation of social relationships, but also these maps of social relationships should be used to realize what Moreno called social planning, meaning to reorganize "organic" social relationships with the help of planned and technologically-embodied social networks. At this point that we can identify a question which is not yet been tackled significantly by research, which Moreno already proposed in 1941: the superimposition of technical social networks upon pre-existing social networks 'produces a situation that takes society unaware and removes it more and more from human control'[1](Moreno 1941). This lost of control is the central problem of the technical social networks currently, and in order to address this phenomenon, we propose to question some of the presuppositions that have been hidden in the historical development of social network analysis.

Despite their explicit mapping of social relationships, social networking analysis is actually an extreme expression of social atomism. This proposition has to be understood sociologically

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[1] J. L. Moreno, Foundations of Sociometry: An Introduction, in sociometry, American Sociological Association , Vol. 4, No. 1 (Feb., 1941), pp. 15-35

and philosophically: The presupposition of the social networks is that individuals that constitute the network, and hence individuals – which in sociology, tend to be humans - are the basic unchanging units of the social networks. If there is any collectivity, it is to be considered primarily to be created by the sum of the individuals and their social relationships as embodied as connected individuals in the network's graph.

This view is at odds with what has been widely understood in anthropology: namely that there is a meaning of a society, community, or some other collectivity that is beyond merely the sum of individuals and their relationships. Historically, it can be noted that the development of collectives as originally exist in the form of families, clans, tribes, and so on and so forth even pre-dates the notion of the autonomous individual[2]. Pierre Musso shows that Saint-Simon was the first philosopher who fully conceptualized the idea of networks via his understanding of physiology, which he then used to analyze vastly different domains, albeit qualitatively rather than quantitatively as done later by Moreno[3]. St. Simon indeed envisioned networks as including communication, transportation, and the like, holding the idea of a network as both his primary concept and tool for social transformation. Yet St. Simon's distinctly old-fashioned industrial vision is not well reflected in the current development of Web-based social networks.

b) Alienation and Disindividuation

The graphical portrayal of social networks as nodes and lines reinforces the perception of Moreno and St. Simon that social relations always exit in the form from one atomic unit to another. This *image*, with its obvious bias towards vision, has become the central paradigm in understanding society and the technological systems. Yet any image is also a mediation between the subject and object that preconfigures – or pre-programs – a certain intuition onto the world[4.] One can imagine that the image itself of a social network as merely lines and dots constrains innovation as it cannot understand how to graphically represent any collectivity beyond the individual as primacy, but always take it only consequence or byproduct of the map of interconnected atoms.

Social networking sites like Facebook stay within this paradigm by providing only digital representations of social relations that pre-exist in a richer social space, and allows new associations based on different discovery algorithms to emerge. Facebook's very existence relies largely on the presupposition of individualism, as the primary unit in Facebook is always the individual's Facebook profile. In general, on other sites such as Google+ group profiles or anonymous profiles are actively discouraged. One cannot deny that these social networks are able to bring people together and form groups whose activity ranges from shopping to protests. Yet we have to be careful here, as these groups are positive externalities in economic terms. These social networking website support only a few collective actions, but are instead optimized for individuals to map their own network of friends so they can leave individuals commenting on each other's posts and clicking on very basic individual operations such as 'Like' and 'Want', which are now increasingly littered throughout the entire Web.

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[2] Such a view of individualism is also naturalized in economic studies since Adam Smith, who saw division of labour as a natural development and the exchange between individuals as the origin of economic life.
[3] P. Musso, Aux origines du concept moderne : corps et réseau dans la philosophie de Saint Simon. In: Quaderni. N. 3, Hiver 87/88. pp. 11-29. doi : 10.3406/quad.1987.2037
[4] One can also speak of the *Weltbild* as deployed by Heidegger, where Heidegger showed that an image is not simply a representation of the world, but also that the world can be controlled and manipulated as an image.

When the users are considered as social atoms which can then be superimposed onto a technological network, the spontaneity and innovation within the collective is given to control of the networks, which is mainly driven by intensive marketing and consumerism aimed at individuals[5]. Social networks have obviously become both an apparatus to express and control the desire of the users. The subject is an atom, and within the social networks, subjectivation becomes an engineering process subjected to careful monitoring and control, which has been thought of by theorists like François Perroux[6] as a new source of a new kind of alienation. This is not entirely dissimilar to the alienation which Marx described in *Das Kapital* thout was produced by having human workers adapt to the rhythm of the machines, so the worker loses control of his vital energy and ultimately his time to reflect and to act. If an existential critique can be introduced here, we can say time hence attention of each social atom is cut into smaller pieces and disperse on the networks by the status updates, interactions, advertisements, and the like. This form of collective that is exactly what Martin Heidegger would call 'das Man', the 'they' who exhausts one's time without giving meaning to one's own existence. In fact, Bernard Stielger would hold that these constructed social atoms are not individuals are not really 'individuals', but the disindividuals, as they seem to have lost their ability to act and to relate except within the apparatus of an atomistic social network[7].

c) Social Engineering and Technical Engineering

Moreno's sociometry was a response to both Marx' economic materialism and Freud's psychological materialism; Moreno and Saint-Simon didn't take digital networks and telecommunication into account in their theories – yet nonetheless technological materialism is currently tied to this new digital economic, psychological, and technological network[8].

Society is mediated by data. Sites like Facebook uses graphs of personal connections to predict and hence 'recommend' products,and so produce desires in the individual that show that the autonomous individual is in fact shaped not only by their relationships in the network, but by the existence of the network itself. While the Internet is a distributed and decentralized network, industrialization reverses this principle as simply to maintain a social graph for analysis the size of Facebook requires immense centralization. Is Facebook a social colletivity, or the false image of one? Going beyond the social graph, we need to grasp other possibilities of 'social networks'.

If subjectivation within social networks an engineering process, what is necessary is to produce a new type of thinking and new form of social networks. Some of this thinking can be seen in various slogans: data portability, privacy and personal possession of data. These slogans are natural responses to the monstrous ability of social networks to create "walled

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[5] After the Like button, Facebook has announced in September 2011 of introducing the Want button, that is designed for marketing, http://www.auctionbytes.com/cab/abn/y11/m09/i23/s01

[6] The French economist François Perroux took up the question of industry and social transformation from Saint-Simon and developed a vision of collective creation, in which humans and machines act on each other and through the standardization of objects, human beings can renew their life style, and produce a system of 'auto collective creation'. Notably Perroux was also influenced by Schumpeter, especially the concept of creative destruction.

[7] B. Stiegler, états de choc : Bêtise et savoir au XXIe Siècle, Mille et une Nuit, 2012, p.102-105, where he proposes three types of disindividuation, firstly the regression to the pure social, what is pure social is the animal form of life; secondly the deskilling process by technologies, for example when the craftsmen had to enter factories and gave up their own skills and way of life; thirdly the process of 'bracketing' the previous individuation which produces a 'quantum jump' and exceed the threshold of the psychical transformation, according to Stiegler, these three types of disindividuations cannot be separated.

[8] J. L. Moreno, The Future of Man's World,, New York Beacon House, Psychodrama Monographs, 1947

gardens" out of personal data; if one tries to leave, one losses everything, including the social relations, profile data, the possibility of communicating with friends. Even when one uses social networking sites, individuals and expressions are conditioned by the capacities permitted according to the features of the website and there is little to no privacy. One cannot choose to be anonymous, on the other hand the verification of identities become more and more an important to industry. There can be political considerations, for example, in China the social networks request the users to prove their identities by showing their identity cards, and this may be in response to the fact that the question of anonymity is seemingly increasingly important for democracy and transparency as has been shown by Wikileaks. There is even a demand for anonymity, as the Japanese Ni Chanel(2ch) which entirely operates on the basis of anonymity has became one of the most popular social network website in Japan. These features would obviously be vital to those in the Middle East, London, Spain, and #OccupyWallSt.

2. Projects, Projections, and Collective Individuation

    a) <u>Projects as a basis for Collective Intelligence</u>

The primary component of our proposal is to take as our stating point not individuals, but individuation. Here we take the idea of *individuation* from the French philosopher of technology Gilbert Simondon who understands individuation is a process both psychological and collective that gives rise to a dynamic concept of the individual. Isn't what we have seen on Facebook already a psychic and collective individuation? As we have seen, Facebook individuates primarily atomistic individuals, and we propose to start from the collective instead in order to redesign the relation between the individual and the collective. Instead of a unchanging social atom, we must find out how a collective social network changes shapes the individual and take this phenomenon as primary.

What distinguishes a collective from an individual is the question of a common project. Take for example Ushahidi, a website that provided mapping capabilities after the earthquarke in Haidi in 2010 in order to help Haiti recover from the crisis. Using a web-based platform, Ushahdidi enabled both locals and overseas volunteers to collect SMS messages with a special code to map the crisis in order help save people who might otherwise be lost. After the earthquake and tsunami in Japan in 2011, engineers from Japan developed a map of damage of the tsunami and the emergencies need to be taken care of through analyzing tweets and other social medias. The dynamics of these projects go far beyond simply posting status updates, but allow people to dynamically work together on common goals. It is the moment of the formation of projects that allow the individuals to individuate themselves through the collective, and and so give meaning to the individual. On Facebook, one can establish a group, a page, an event, it seems to allow a common project to appear, but it doesn't provide the tools for collective individuation based on collaboration.

    b) Case Studies and a Possible Framework

We look at some of the current models, including Wikipedia, some open source platforms, and alternative social networking projects like Lorea[9], Federated General Assembly[10], Crabgrass[11], and Diaspora - as well as unusual social networking websites such as Ni

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[9] https://n-1.cc/pg/groups/7826/lorea/
[10] http://projects.occupy.net/
[11] https://we.riseup.net/crabgrass/about

Channel, NicoNico Douga in Japan. Although each of them has some of the collaborative features necessary for a new kind of social network, they should at least

(1) Collectives and Projects

We propose that the social networking site should exist as a set of tools to enable the collective creation and administration of a project. The collective intelligence is activated insofar as the group successfully uses its human and technical abilities to accomplish its goals. A user must always belong to a project, without which he or she will *not* be able to fully utilize the features – and projects are defined by groups. This is a first attempt to tackle the individualism proposed in the current paradigm of social networks. Each project is defined by a goal and requirements of fulfillments as collectively initiated and updated by members of the group. Tasks will be assigned to users either in the form of individuals or subgroups, the progress of the tasks will be monitored and indicated. However, the collective should be dynamic rather than static groups can be merged together to form larger projects and a project can also be split into smaller collectives. Groups can discover each other and communicate to seek possibility of collaborations and information sharing.

(2) Communication between Groups

The network primarily exists as directed social communication aiming at a project, and to enable these various natural language forums such as discussions and wikis should be added. However, unlike traditional social networks, the purpose of the social networking site will be to help users store and refine data, with the data being stored in an open format such as RDF. Users and groups have the permission to manage the data of the project, and retrieve this data using tagging and search. Mapping should be employed as one possible, and easily interpretable, way to understand collective data collection.

(3) Anonymity and Data Security

Anonymity can be allowed under certain conditions (for example the group is wholly anonymous, or the group decides to open to anonymity) by collective projects. For example, in Ni Channel, one of the reasons that the inventor wants it to be anonymous is that there won't be segregation that might harm the formation of collectives[12]. Personal data should be accessible only to the collective, and not even to those that run the server. Concerning the security of the networks, data either on the servers will be encrypted by implementing public key infrastructure, with the group being defined by shared public keys. Hence the ISP and system adminstrators won't be able to access the data on the server. Secondly the data will be stored distributed across multiple servers in order to minimize the consequences of attacks.

The above outline is an introduction to an ongoing funded project on alternative theoretical and practical models for social networks. Beyond Facebook, collective individuation proposes that another social network is possible. The technical requirement we proposed above are sketches need to be refined and implemented, but our goal should be clear.

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[12] Satoshi Hamano, Architecutre no seitaikei: Johokankyo wa ikani sekkeisaretekitaka(The Ecology of Architecture), Chinese translation, Taiwan, 2011