META

This is a convergence of mental constructions and bubbles that have been developing and transforming in me over the last years based on the experience life served me. Earlier stages of this and similar thought-branches but in less consolidated form (although possibly in more depth) can be found on my blog. This doesn't have a name and i am tempted to not even give it one. It has a lot of energy (for me) but not a clearly intended direction. If it is challenging your understanding of where to start and what this is all about..., then good :) I don't know if it's better for you to read from the outside in or the other way around or random jumping... i hope as you spend time with this - that it will inspire your perception even so the concrete meaning might be blurry. This is version one, updates are likely to happen. It will sound like a lot of thoughts from the mathematical and programming field and as this is a concept for a software - and yes, it could indeed be - but foremost it is a fluid conceptual conglomerate that can flow into many different areas. Math/Programming comes handy for my brain as i find it can bring fantastic inspiration into psychic and social fields when seen both literally AND as metaphor. My intention though is to have the computer out of the way at the end of the day - the processing and sensing capacity of our body-mind-spirit systems is so far greater than any computational power. And this social/collective intelligence is what i want to learn to utilize and contribute to its awakening more and more. I think for now it's valid to use the metaphor of the body to talk about groups because we haven't found better understanding and language for it - however, there is great chances for loss of indispensable complexity when scaling a metaphor up and trying to draw valuable conclusion from interpreting that metaphor in the larger context. Metaphors can be scaled down for sure (the universe in the nutshell) but when scald up there is caution necessary - there are completely new dynamics in groups that you don't find in a single body... and we are just learning to understand and find a language to describe this dynamics... *enjoy :)*

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"Benjamin is becoming a 'shamanic toolmaker', exploring collective intelligence in groups and the possibility for mathematical algorithms to enhance the intersection of discovery, intuition and spirituality. Benjamin is studying how the construction of individual and group identities can facilitate collaboration and the evolution of consciousness." by @VanessaMiemis

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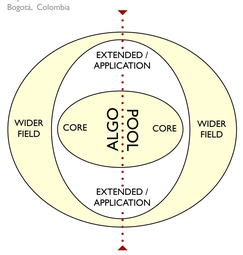


WIDER FIELD

EXTENDED / APPLICATION

To use algorithms that investigate **the frequency of occurrence of combinations of entities** is utterly interesting as it points 'beyond average' and towards **harvesting choosing-intelligences**. We stop messing with the content, we keep its integrity > protecting emerging capsules of identity. We look how someone who knows their thing brings order into that content, and then we look how someone else does it and some more - finally we look what combinations of order appear how many times across the different patterns that all the single-brains created to the best of their abilities.

If there are more than 15.000 possible groups of 5 out of 20 people - how do you know which group of 5 is the one you want to work with? Luckily we don't have to rationally investigate all 15.000 options (!), **we have built-in optimization** algorithms/functions/pathways for that - it's called intuition, attraction, avoidance, trusted recommendations and many more. So there is an incredible amount of intelligence in this almost unconscious choosing/prioritization process. Wouldn't it be fascinating to harvest exactly that intelligence collectively?
Depending on the time and kind of activities this group of 20 spends with each other - most likely not all of these 15.000 subgroups have experienced themselves socially as such. In social landscapes **subgroups gain weight by realizing themselves as subgroup and charging their shared meaning container**, their shared identity through spending time together. Especially if they gather around a purpose and work towards something the third identity of the group gets charged. An extreme would be a love couple for instance - a lot of shared meaning there!
What you can also do is 'carry along' the stimulus of this group being a group (the hashtag interested in #design for instance) in the algorithm just by adding it like a person. You could experiment with a process of first calculating a sub-subgroup ranking based on peoples attraction towards their favorite group and then do another round where you ask people to form a group around themselves that would be most challenging to work with! And then compare these two sub-subgroup rankings and draw whatever fancy conclusions :)

This was all the **DEconstructing part** - somehow its analyzing/taking-apart but 'squeezing out' the clustering intelligence of the system.
A whole other chapter is the **REconstruction part**! You can ask; based on this sub-subgroup ranking, how do we structure this group of 32 people into the best possible subgroups of 4! What you find out though is that if you consider all options to structure 32 people into groups of 4 - you would have to consider 1x10^25 (number with 25 zeros) options, which can take quite a while for a computer to run through.
So to do this even with the computer you will need to find optimization algorithms instead of checking all options and ranking them!

Another intriguing thought is on **social processors**! In this group of 32 people you have over 4billion possible subgroups - what if every one of them only carriers one bit of information, on or off, just like a computer processor works. And imagine now you would find a way to 'program' this group to process information through switching their subgroups on or off... and then think about that a group actually can hold an incredible bigger amount of information than one bit... so - how far are we from outperforming a computer through a social processor!? Maybe light-years, maybe just the insight on the right 'group programming language'... ;) And yes, a social body is already processing endlessly more information than a computer ever could through all the cognitive and emotional layers of psychological systems weaving the social system - but this power it not (yet) aligned to execute purely mathematic processes.

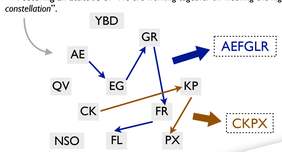
From the perspective of evolution of consciousness (for instance with the Spiral Dynamics model from Don Beck) it seems to be the edge for us to learn and really to embody that
Let's go into an extreme perspective for a moment - what if we would stop wanting to create shared understanding, create purpose statements together and all these things that take as assumption that we're all equal.... what if we keep the integrity around capsules of emerging content and surf the possibilities of constellations using meta-data/tags/intuitive-pieces-of-meaning of the emerging content, until the constellation with the highest energy has been found amongst endless possible one (knowing that the group of one can also be a valid one!) - and THEN release the content and synergize! Yes, you could work with anyone... but wait for the moment of pure alignment into the highest potential through the right ingredients into the social body. Humbly leaning back until the field is aligned and the biggest things can happen without talking in seconds... group work is never a time-issue, it's always an issue of alignment. Maximize the use of single-brains and unite in the brightest diversity around the elegant vibration of coherence in the middle.
The circle is facing outwards - supportive community energy flowing in the center but everyone looks outside into her or his own unique playground... the elders in the larger circle make sure the net will be healed when it gets broken through wild breakthroughs! (elder image from Maria Scordialos - from yellow to turquoise meme. Spiral Dynamics)

The idea of investigating "the frequency of occurrence of combinations of entities" can applied in so many situations - not just in social systems. I visualized two more potential applications of the algorithm on crowd-sourcing the menu-structure on a website and exploring **meaningful playlist-fragments** of social technologies. Again, i have not many thoughts on the reconstruction phase... maybe it's the final step that is up for human brains and only those... or i have yet to discover the algorithm :)

What we're experience is a huge opening of consciousness where we can look at concepts like 'religion' and say; "oh, that's interesting, what is this about? let's redesign it!". Everything is a question of design and of mixing your unique playlist into something you call your identity. This comes with great danger of misinterpreting the act of choosing from given products (physical and thoughts/world-view) as an act of creation instead of an act of remixing, and cutting off the root-energy of pure creation from empty space. But it also comes with incredible opportunities - it gets less and less interesting to start my introduction with "i am Benjamin, 24 years old, from Germany..." these kind of standard categories are worn out and we find ourselves curious to access the wholeness of a human being from different angles... currently for instance its this passion-thing that we're curious about - i would imagine we will explore other entries like responsive intelligence and field sensations...
So we're experiencing an acceleration of the dance of content and categories! At the forefront of creative creation almost every new piece of content comes with its own category... that leads to a liquid state of categories - things crystallize in the present moment both in content and category, and in fact, it doesn't matter what is what - **data and metadata are melting** in the act of creation and curating your own being...

The 1&I relationship, the group of 2 is the one we're able to process most content and go deep. I am curious to conduct an experiment in a group of people to only allow communication in groups of 2, not more - and then solve complex tasks as a whole group. I imagine a very messy start but more and more swarm-alignment of the 1&I spaceships.... :)
As soon as there is a 3rd person you have social meta-dynamics of acceptance, rejection, interpretation and all that. My sense is that we will learn (turquoise meme i guess) to drop the meta-influences of the "3rd person (or more of course) coming into the system" and go as deep in a group of 3 as we used to go deep in a group of 2. I would even think that the 1&I process of love is something we can learn to expand within groups of 3 or more...
To nourish the growth of our collective ability of this it's important to **trust your own subgroup-forming impulses and communicate them**. We're used to say "you have to talk to this person" - and that's good and the threshold for doing so gets luckily lower and lower - but what becomes superinteresting is to share your impulses of this 3 people to meet, or these 4 people that might not know each other yet but you do - they should talk about childrens books... you see? subgroup-impulses are so precious, its important to share them - wherever they come from, if its a dream or a thought process or a symbolic journey... be tuned to the magic of the subgroup-impulse!

• situation of **conference** with 500 people - task is to effectively network in the breaks. Sub-subgroup ranking algorithm gets real-time feedback on subgroups that constantly improves the outcome - results are displayed. In addition connections being made in the room are shown on a screen - a visual representation of the value creation, it puts a collective mirror in the center > algorithmically suggested groups pop up. The topic they talk about could be included or more material could be harvested from peoples profile to make content-suggestions/ tracking besides group-suggestions.
To ensure the continuos weaving of the tissue you can include people that are not physically present through recommendations. Like facebook is having an account about someone long before this person actually signs up because they store and cross-check people's address-books and build identities-to-be-filled.
A reward system / social currency could be used to generate motivation and strengthen a collective sense of mapping and constructing.
•Fostering an attitude of "*We are working together on weaving the highest potential of this constellation*".



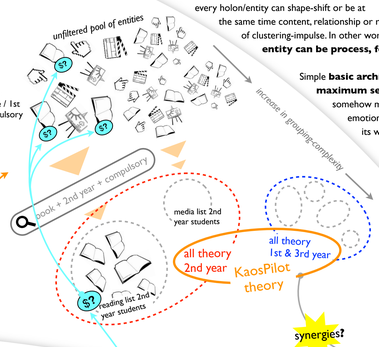
optimization and mapping apps:

- A team **chooses 5 projects out of 15**. everyone submits their 1st 2nd and 3rd choice among the 15. The algorithm explores all subgroups of 5 (= 3003) and presents the option with the most happiness :)
- A team of 6 people want to map out their **value-generating process in their subgroups**. So the visualization generator creates them printable grids of all 64 subgroups in post-it format - for them to put up on the wall and record the dinner these 2 did, or the email that she sent or the potential you see in these 3 designing the package or so on...
- **Dynamic Schedule Optimizing** as one function of the toolkit. A team of many people run 5 projects in different overlapping constellations at the same time. The task is to structure 5 project-meetings into one day with minimized double-bookings.

example application: **media library** in the KaosPilot school - *sample entities*:

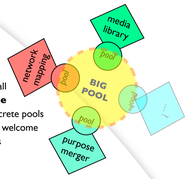
Every entity is treated as a **holon** = a whole in itself and can be part of a larger entity at the same time (Holarchy, Ken Wilber).

every holon/entity can shape-shift or be at the same time content, relationship or result of clustering-impulse. In other words; **every entity can be process, form or system**.



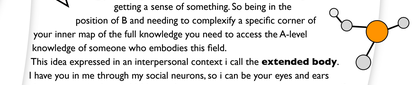
Simple **basic architecture that allows maximum self-organization** and evolution. It's somehow mapping how the mind works... ideally emotions and temporary fluctuations/associations will find its way in as well.

As this architecture can be applied to so many applications its important to narrow the use down to specific fields in the beginning (like the library for a school is very concrete, or the personal network, or a purpose-statement merger with the algo). Once the pools grows, the entities of all different applications can be made accessible in **one big pool** from the same platform > merge concrete pools into one pool. Because eventually any entity is welcome and makes the pool more rich and increases possibilities for meaning and emergence.



Besides the basic organization of the pool through entities that can be pure content, relationship, clustering, attribute or category - it has mechanisms to **ensure that the system keeps evolving**.
When Tim Berners-Lee (inventor of the internet) got asked what he sees in the future of the internet he said that he does not even want to try to answer this questions because it needs to go beyond his imagination.
So for a truly evolutionary approach **the creation needs to transcend the creator**! If the architect thinks of all possible categories for an entity it might go well for a while and the content can grow - but it can never complexify itself in the categories. So it needs an architecture that allows both content and categories to evolve.
The *expectation tag* is an attempt to make the evolution of categories possible - in the example i tag the reading list with "required information: price" and the new category get's passed on to all sub-items. Then whoever knows this information about the actual books can give the content to this new category (the person that submit that entity would be informed via email and anyone can subscribe to updates from entity histories). Price is a simple content (that could potentially be researched automatically online) but if you have more intellectual content to provide - like the new category of a short summary, then you need to have this information provided by people who have actually read that book - so they are **IN the depth of the context**., they embody what you're looking for. So the expectation tag seeks for content-providers in that new category that are most complexified in that issue.

Let's say **A** is knowledge in its most complexified form, meaning someone holding his own original idea or someone able to communicate in his mother-tongue or any in-depth context basically. **B** is learning/mimicking that knowledge - is trying to learn the language for instance or is partly understanding the idea or is getting a sense of something. So being in the position of B and needing to complexify a specific corner of your inner map of the full knowledge you need to access the A-level knowledge of someone who embodies this field.
This idea expressed in an interpersonal context i call the **extended body**. I have you in me through my social neurons, so i can be your eyes and ears when i am out in the world. I know that you are amazing at writing stories so if i have an impulse for a story i will share that with you - because you can express it as part of my extended body. Or you know your way in this city because you live here - so as part of my extended body (that i can't access in my own brain, but our friendship/trust is the bond) i will just follow you. Or you are totally embodying this network and know everyone and i have just a vague sense of this being meaningful in that context... so i let you share that information in the field you're soaked in :)



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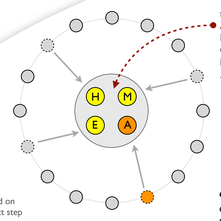


sub-groups
AEHM
BDFJL
CFJNPR
DFOR
...

sub-sub-groups
AEHM
AE
AH EH
AM EM MM
AEH
AHM EHM
BDFJL
...

sub-sub-group **ranking** *example*
AE : **12**
DF : **9**
FJN : **6**
JNPR : **3**
...

harvest categorizing intelligence / group forming impulses

a group of x members has 2^x possible subgroups (so all possible subgroups of 2 + all possible subgroups of 3 ...). A group of 20 people for instance has 1.05million possible subgroups. A group of 6 has 64 possible subgroups - the quantity of those in relation to the subgroup-size behaves like a Gauss curve. n is group size and k the subgroup size:

$$\frac{n!}{(n-k)!}$$

in such abundance of options it's crucial to have intelligences that choose.
gather maximum group forming impulses = subgroups. split open into sub-sub-groups and create ranking. it's also possible to treat the group forming impulse (hashtags/purpose/question...) and ad it as an equal person to the subgroup.

0: 1
1: 6
2: 15
3: 20
4: 15
5: 6
6: 1

example: team brainstormed on sub-sites on their website, next step is to cluster them into menus.

instead of one/two person doing the categorizing work and the rest more or less agreeing - everyone gets asked to do it alone as good as possible.

pattern1:

about us	forum	products	links	impressum
the team	photos	downloads	search	contact
history	video		help	

pattern2:

about us	photos	forum
the team	video	contact
history	links	impressum
products		help
downloads		search

pattern3: ...more single-brain clusterings

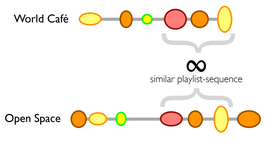
from all single-brain patterns the algorithm generates the sub-sub-groups and gives back the **ranking of the sub-sub-groups**/constellations

photos video	7	products downloads links
about us the team history	6	help search forum
contact impressum	5	products downloads

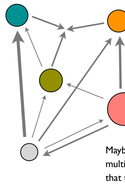
deconstruct
create sub-subgroup ranking based on subgroup forming impulses.

reconstruct
use ranked sub-subgroups to construct meaningful subgroups (exponential growth of possible options if no optimizing algorithms).

through ranking the quantity of sub-subgroups we see constellations that appear often.
when we run that algorithm over a collection of pattern-playlists of some kind (like World Café and Open Space or other social technologies) we can learn which combinations of patterns appear together how many times. So for instance we could see that it apparently makes sense to have a harvesting round after a breakout session and then have a coffee break :)



this way of finding strong constellations within pattern-playlists could also be applied to language! As a support to **merge various purpose statements** for instance (in that case you might include a thesaurus function).



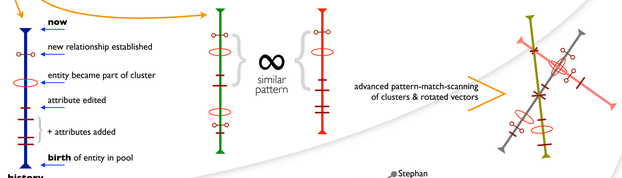
comet force-field
an example of a visualization that could unfold the complexity of multilayered connections through combining them all in one acceleration vector per entity that determines the movement of each entity in a force-field of entities as 'comets'. Each one is attracted by other entities and group clusters have additional attraction to their center.
The dynamic movement of all entities that will emerge will show various collective patterns.
Maybe possible to operate in multidimensional space (6D or more) so that the 'movements' become more accurate and interdependent.

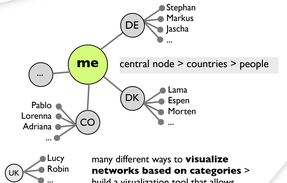
the pool consists of **entities:**
a basic entity is pure content (link, img, vid, person, book)
entities can have **attributes**/tags to give context information
an attribute is an entity
entities can have **relationships** with other entities
a relationship is an entity
an attribute of an entity can be seen as a relationship to itself
a **selection/cluster/group** of entities can become a new entity
the selection can be made through search (using logical operators with the attributes) and+or manual composition
every entity has a **history** from its 'birth' in the system that records every movement this entity experiences

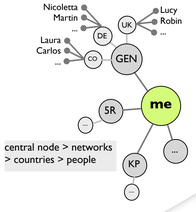
an **entity** can be
- pure content
- an attribute/tag/context-info of an entity
- a relationship between entities
- a selection/cluster/group
- any combination of the above

coherence:
- **merge same attributes**/entities (via thesaurus suggestions & manual observation)
- **suggest simplifications** (based on set theory)

evolution:
- **expectation tag** > expand info through 'ordering' new category. to be filled with content of all sub-entities from the one you tag.
- scan for **similar patterns** using entity-history. ask for relevance of findings > transcend linear progression through analogies, like DNA
- create 'empty' group or pure relationship first and **let it be found** by entities. 'vacuum to be filled'.
- 'calling forth' **potential** of entity/group/relationship
- **blurry tag**, map the breath of complexifying and simplifying (builds up through expectation, peaks in experience, decays in memory)
- **organic input** (gestures, impulse mouse drawings, keyboard rhythms...) and **behavior** tracking (save search-entity automatically...)
- **identity template** for each entity (what makes this entity an identity, what's its borders, who is nourishing it's dissipative structure...)

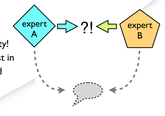




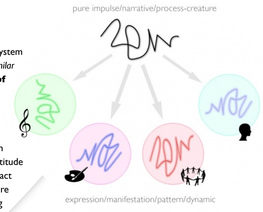


many different ways to **visualize networks based on categories** > build a visualization tool that allows to shift between options with a few clicks. It can also suggest visualizing pathways based on 'digestible amount of visible information' and other optimization algorithms and frames.

Ultimately we're seeking ways for *expert A* to talk to *expert B* on the highest possible level of complexity! Humanities knowledge is expanding so fast in all directions that "social translation" (Reinoud Mejier) between silos of expert language and reference-symbols in very specialized fields becomes so important! And it seems that metaphors/analogies when used well can offer for both expert A and B to pour in their brilliance and understanding each other in it.



Along the line of creating mechanisms for the system to keep evolving - the idea behind *scanning for similar pattern* is the attempt to **mimic the concept of an analogy**/metaphor and thereby bring a stream of non-linear raw-material for creativity in.
There is a pure impulse, i call it **process creature**.
The musician expresses it in a song , the artist draws a painting, a social body in a group dynamic, a person through writing a blogpost... there is impulses and then there is a multitude of fields and to express that through - every identity will contract differently around the same impulse. We have no way to share pure impulses, we are tied to our forms of expression. Beautifully flowing united sex might be the form of communication where the pure impulses have the shortest distance to its expression.
So the idea is that the pattern scanner detects similarities that might be indicators for having found different expressions from the same impulse > analogies! Imagine that for two organizations; a great invitation for collaboration!



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