

The chart results from applying “rainbow fingers” to a name-list (*non-repetitive* groups of 4 from a population 28, meeting 8 times), the procedure creates paths that you can use to walk through the chart in different directions (mainly the vertical bar structure, and the diagonal patterns from the top right).

In the last 6 months we have had two instances where a chatBOT—I am using Bing because it is integrated with the Microsoft Edge browser, which indicates a step towards the normalisation of AI as a *tool*—said it was unable to solve and even discuss what was submitted to it. In one instance it was a 1000 word essay written with a rule-based structure of quotes as a “rhythm bar” in the text throughout: the remainder of the text was free flowing making a harvest of contingencies. The chatBOT produced substandard summaries whether it was put in precise, balanced, creative.

In the end, it concluded that it was unable to summarise and compress the text, or the project of the text. A similar situation emerged as I wanted to create non-repetitive groups of 4, in a class of 28, across 8 sessions. It showed me how I could do some programming in Python, and linked me a coupled of apps. But I sensed that the comprehension of the problem was ailing, since the apps really did not address my brief. When I started I thought that my problem was a classical problem a computer would easily feed me. But instead I used my day to produce a the chart on my own.

The original contains the student’s names, since the groups are for learning a particular method that works in groups of 4, and for the students—who are new to the school—to get to know a maximum of other students in a situation with professional interaction. When the list was complete and tested for missing entries and duplicates, I changed out the names and put in greyscale and colour. Mostly for memory. To see if the pattern would indicate a *method*: in the first four columns of groups (called QUADS) there 4 vertical bars: black, graphite, green and orange.

These constants make it easier to generate the rest of the group because, there are 3 permutable elements in non-repetitive relation to the four bars (instead of 4 elements, which makes a considerable difference). An additional condition was that as many of the students should have been in a group with me during the term. What was achieved is that all class-members (including me) will have met professionally with 24 out of 28 people. This is what the cost of keeping 4 constant, and closing up with me optional. And after the 4 bars, the number of alternative permutations dropped, and the complexity of find a vacant slot/free element increased.



The work of the hands affords walking across. See the [web page](#).

The task was algo/rhythmic till it dissolved into the complexity of number vastly exceeding a normal human capacity. So, about half the chart was done by trial and error (using *search*—or, Find—to check for mistakes as the end): but with a kind of system; since the alternative candidates were selected by using a structured method. The method was the same as used from the start: namely to make sure that the *elements* checked for adequacy, were from different groups in the *first* lineup, in the top group-row on the first run, where the students were simply listed in alphabetical order. Nothing very intelligent at that end.

So, the *ordering system* with 4 bars used in the beginning

was *group*-led, while the *navigation system* used in the end-game, squeezed out the fit with an emphasis on the *elements* (one-by-one). In sum, the process of completing the chart had some points in common with the Japanese [Go-game](#): where you have the *opening game* (using the elements in the top left square as bars in 4 successive group generators), the *middle-game* where the main approach was a pattern-algorithm (Minsky writes that an algorithm is an effective procedure), while the *end-game* proceeds by the interception of elementary chain-reactions.

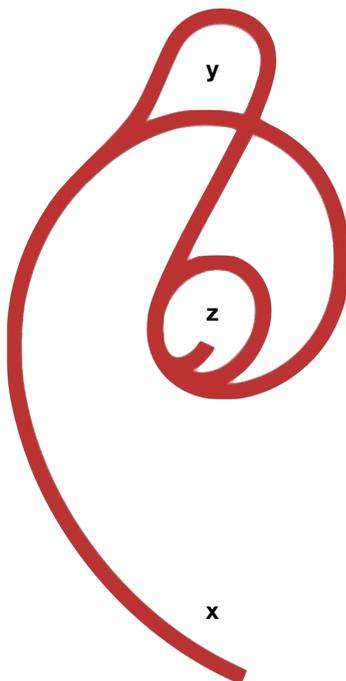
The question isn't whether/not computers like this sort of problem, as the question of which sort of problem it is. It is the kind of problem where the repertoires required in different phases—such as the opening-, middle- and endgame—or not only different, but that one has a sense of moving out of the game and into a different game altogether, as one moves from one *phase/mode* to the next: and yet it is the same game. In some sense, the existence of something in between *is*, and *is not*: between 1 and 0. Or, for that matter something between group and element: e.g. *colours*.

That is, a structural squeeze between the group level of the arrangement and the elementary chain reactions toward the end. For as long as it generates *pattern* both we and the computer are happy (perhaps the computer is even happier than us). The initial system will appear *rigid*, while the final surf will appear *chaotic* (chaos with an edge if we succeed). Can we from this infer that the problem for AI (so far) is not the number of variables, but the changing *modus operandi* that computers cannot make out (or, struggle with to the point of saying 'I cannot do this').

But that doesn't mean that it is not a computing problem. Because the pattern of the chart seems to indicate that there might be a third layer at work here, moving across the groups yet is beyond the elementary level. That, if we think of it in the terms of *disordered systems*, the emergent properties are system-like, *without* being wholly systematic: and above, they are heterostructural in relation to both the group- and element-levels. Which could suggest that *excrescences* that Badiou links to the group level, and *singularity* to the elements is *not even* dialectic.

What we see is something that emerges from the between-space of group and element, which simply wasn't there, and that neither be extrapolated/interpolated from either of the two, and is in this sense emergent. What emergent means is that something is created from nothing, but in a limited and partial sense: it happens within certain constraints, and is in this sense emergent. So what we have is not cells (or, cells of cells) and their identified contents (in each cell), but a transmigrating presence of the something, which is more akin to intelligence than in AI.

It is something that may perhaps be something closer to *psycho-geography*: since when the students are going to find their groups, say their name as listed in group/QUAD4, then they will simply go to a spot in the room where a printout with the number 4 has been disposed. Before they can read the chart, the students will approach the situation in a similar way as in Guy Debord's *rendezvous possible*. You are assigned to go to a place where you may/not find someone else with the same instruction. This magic repeats till the students can read the chart.



The idea of shifters applied to games, game x and game y and the possibility that the game shift—like Bateson's [deuterolearning](#)—is an access & spawning to a new level of intelligence z.

In the groups, they will use a method similar to the *derive*, since the framework is entirely structured: their job is then to secure a harvest of contingency, with the contract that *it is important because it happens* and so is followed up (it does not happen because it is important). The capture, cultivation and harvest from contingencies is what a rule-based protocol can bring out. The cultivation proceeds from *analogy*, as it starts with *similarity*, proceeds to *difference* and ends up with a *game-shift* (what we have called off or other): where the game-shift is *not* a change *in* the game but *of* it). It engages a particular problem with time: the contemporary.

So, in the expanded theory of shifters we may want to include game-shifters (as the category that doesn't compute in computers, but does compute in humans at this point). It is a kind of game in which we are not guessing what the next step will be, but what the next *modus operandi* might be. Guy Debord's psycho-geographic proposal might provide us with exactly that. Not to speculate on the nature of intelligence, but rather in some sense to *spawn* it.