# Eranism 

A need-based aid economy

## Colophon

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4 july 2021 release
13 july 2021 group total 104 for client 'A. Carpenter' should have been 98 . Limit 100 changed to 97.
Inserted slide for 14-day interval.

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## Introduction

In brief: what is Eranism and why would we want it?

## What does the word 'Eranism' mean?

The word 'eranism' is derived from the classic Greek 'eranos,' which means both assistance association and Dutch party or potluck, that is, a party without a host to which people bring their own food and drinks to share.
Eranism is here defined as something similar: a mutualist, moneyless economy.

## What is Eranism?

Eranism is an economy based on labour time recordings which can not be traded. Goods and labour are distributed as follows.

- Goods are allocated to persons according to reported needs and proportional to one's effort, that is, the actual labour time divided by the potential labour time. There may be a budget of goods.
- Work is done on the basis of freely agreed contracts between employee and employer (who may represent a group.) Groups of people with different professions agree on a time budget for their group. Time is recorded by the employer or a group representative.
If the employer records more hours than the employee worked in reality, then a next moment, the employer may not be able to hire somebody because the time budget has been used.


## What is the scope of Eranism?

Eranism has nothing to say about

- decision making, which nevertheless is likely to be collective at various levels;
- private property, although means of living, objects which need maintenance, and things with an emotional value are expected to remain property, while others goods may probably be at free disposal.


## Why Eranism?

Eranism has the following properties.

- It is need-based: people only request goods and labour they really need. So, it reduces superfluous, harmful consumption and activities, including production and spoliation.
- It is strategy-proof, that is, nobody can profit from misreporting one's needs or labour time.
- It is mutualist in the sense that a community as a whole is asked for help and not necessarily a particular person; the help is not mandatory, as is the case with debts or the obligation for reciprocation. So, it fosters mutual aid and discourages competition.
- It does without money and therefore is less susceptible to the unwanted side-effects of the monetary system. In particular, it is immune to money's faculty of hiding reality and the essence of life from its users.
Notice that money is a vehicle for mutualism too because it is a means of asking for help from a community at large without a guarantee that such help is given.


## Elaboration by Example

A description of the Excel spread sheets, of which the relevant parts have been copied throughout

## Sample groups

A sample group is a small group of people having as diverse professions as possible and a common time budget. The example use a group A, a group B and, at the second level, the union AB of both. Groups at the same level do not overlap. People who are not a member of a sample group do not participate in the eranist economy.

See the next slide for persons and their sample groups. (It's a copy of the Excel tab page 'Persons'.) People's names are mnemonics of their sample group and profession. For example, A. Carpenter is a carpenter from sample group A.

Each sample group has at least two representatives, who have been indicated by one asterisk for the first level and two asterisks for the second level.

## Persons

| Person | Sample group | Service | Max <br> hours <br> per <br> day | Max <br> days <br> per 7 <br> days | Max <br> hours <br> per 7 <br> days |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A.Baker (*) | A | Bakery |  | 85 | 40 |
| A.Carpenter (**) | A | Woodwork |  | 85 | 40 |
| A.Cleaner | A | Cleaning |  | 45 | 20 |
| A.Farmer (*) | A | Crop cultivation |  | 85 | 40 |
| B.Butcher (*) | B | Meat preparation |  | 85 | 40 |
| B.Carpenter (*) | B | Woodwork |  | 85 | 40 |
| B. Driver (**) | B | Transport |  | 85 | 40 |
| B.Painter | B | Painting |  | 85 | 40 |
| B. Singer | B | Manual labour |  | 85 | 40 |
|  |  | Play and rehearse |  | $3 \quad 5$ |  |
| C.Doctor | C | Cure and medical care. |  | 85 | 40 |

(*) Representative of the sample group (there are at least two representatives)
${ }^{(* *)}$ Representative of $A B$, the sample group consisting of $A$ and $B$
The asterisks have been retained in the name to ensure that upon entry of names, only representatives represent a sample group.

## Legend

| Green | Determining field (input) |
| :--- | :--- |
| Yellow | Determined field (input) |
| Blue | Computed field (output) |
| Grey | Copied field (output) |
| Orange | Violation of constraint |

The meanings of the colors are not essential for this exposition, but here they are in case you are interested.

## Distribution

Goods are for free but people should tell in advance what they expect to need. In the following mechanism, reporting one's true needs is most profitable for everybody.

So, there is not need for inspections or sanctions.
This is also arranged by time pooling, see the section below. So, you may skip the following at first reading.

## Reporting expected needs

|  | Community | Demanded | DemandedUnit of <br> object type amount |
| :--- | :--- | :--- | :---: |
| measure |  |  |  |

At the start of the week, people report their expected needs to a central repository without others to know. They can pretend to need more than in reality but this will turn out not to be profitable. Of course, needs which do not change hold for every week to come and are not entered every week again. See the Excel tab page ' 7 -day demands of $A^{\prime}$.

## Inventories

| Supplier group | Object | Start (date and time) | Available for 7 days |
| :--- | :--- | :--- | :--- |
| A | Bread | Monday | 5iece measure |
| A | Energy | Monday | 1850 Megajoule |
| A | Water | Monday | 210 liter |

At the end of the previous week, this is available for the next week.

## Assigning priorities

| Demander | Community service? | Priority | Effort | Demanded object type | Demanded amount |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A.Baker ( ${ }^{*}$ ) | yes |  | 1 | Energy | 1200 |
| A.Baker ( ${ }^{*}$ ) | yes |  | 1 | Water | 30 |
| A.Farmer ( ${ }^{*}$ ) | yes |  | 2 | Energy | 300 |
| A.Farmer ( ${ }^{*}$ ) | yes |  | 2 | Water | 120 |
| A.Baker ( ${ }^{*}$ ) | no |  | 0,75 | Bread | 3 |
| A.Carbenter (**) | no |  | 0.8 | Bread | 2 |

Next, priorities are assigned, e.g. by the community. They indicate who gets resources first. The baker is needed for weekly bread (prio 1) and in times of drought or energy scarcity, the farmer will have to wait (prio 2.) The baker as the individual A. Baker has prio 3.

## Allotments according to priorities

| Demander | Community service? | Priority | Weight | Demanded object type | Demanded amount | Available | Allotment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A.Baker (*) | yes | 1 |  | Energy | 1200 | 1850 | 1200 |
| A.Baker (*) | yes | 1 |  | Water | 30 | 210 | 30 |
| A.Farmer (*) | yes | 2 |  | Energy | 300 | 650 | 300 |
| A.Farmer (*) | yes | 2 |  | Water | 120 | 180 | 120 |

This is straighforward. The 1850 is copied from the resources tab page (shown at the start). The baker gets all he or she needs and 650 is left over for the farmer. The same goes for water: 210$30=180$.

## Why not pretend to need more before getting priority?

That would not be profitable. Suppose the baker just pretends to need 1200 Megajoules of energy, for instance, to fuel a hot bubbling bath tub instead of using the energy for the bakery. However, the community may becomes suspicious and assign priority 2 instead of 1. On the other hand, as to distributing bread, it is difficult to check whether the baker has not kept bread for his or her own family.

Now for individuals (priority 3). Consider bread.

| Demander | Effort | Demande object typ | Demanded amount |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A.Baker ( ${ }^{*}$ ) | 0,75 | Bread | 3 |  | 6 |
| A.Carpenter ( ${ }^{* *}$ ) |  | Bread | 2 |  |  |
| A.Cleaner |  | Bread | 1 |  |  |
| A.Farmer (*) | 0,85 | Bread | 2 |  |  |

The efforts have been copied from the previous week. For example, Baker has worked $3 / 4$ of the time he or she could have worked. For some reason, only 6 breads are to be distributed. However, $3+2+1+2=8$ breads are demanded. The procedure to distribute those 8 breads, which can be divided, is as follows.

## Distributing amongst individuals (step 1)

| Demander | Effort | Demanded amount | Relative demand |
| :---: | :---: | :---: | :---: |
| A.Baker (*) | 0,75 | 3 | 4 |
| A.Carpenter (**) | 0,8 | 2 | 2,5 |
| A.Cleaner | 0,6 | 1 | 1,666667 |
| A.Farmer (*) | 0,85 | 2 | 2,352941 |

First, compute the relative demand, that is, the demand divided by the effort. So, Baker relatively demands $3: 3 / 4=4$. People get bread in the order of the relative demand, so Cleaner, Farmer, Carpenter, Baker. (The relative demand is not shown in the real spread sheet.)

## Distributing amongst individuals (step 2)

|  | Demanded |  |  |
| :--- | ---: | ---: | ---: |
| Demander | Effort | amount | Allotment |
| A.Baker $\left(^{*}\right)$ | 0,75 | 3 | 1,5625 |
| A.Carpenter $\left(^{* *}\right)$ | 0,8 | 2 | 1,666667 |
| A.Cleaner | 0,6 | 1 | 1 |
| A.Farmer $\left(^{*}\right)$ | 0,85 | 2 | 1,770833 |

The effort of Cleaner is 0.6 . This is $20 \%$ of the total effort $0,75+0,8+0,6+0,85=3$. The cap (maximum allotment) of Cleaner therefore is $20 \%$ of 6 breads, that is, $1 \frac{1}{5}$. Cleaner gets his demand or the cap, whichever is smaller, so 1. This is repeated for the rest: $6-1=5$ remains to be distributed and the sum of the remaining efforts is 3$0.6=2.4$. The order stays fixed, so Farmer is next. His or her effort 0.85 divided by 2.4 equals $35.41666 \ldots \%$ so the cap is this percentage of the remaining 5 , that is, 1.770833 . This is also what Farmer gets because it is more than demanded. To be distributed now is $5-1.770833=3.2291666 \ldots$ and the total effort is 1.55 . For Carpenter, the percentage is $0.8 / 1.55$ is $51.6129 \ldots \%$ so the cap is this percentage of $3.2291666 \ldots$ which equals 1.666667 . Carpenter gets just this because he or she demands more. The remainder 1.5625 is for Baker.

## Why not misreport one's needs?

That is not profitable, for two reasons. First, the more products a person claims to need, the higher the estimated time budget to produce them and the longer this person might need to work, not necessarily to make this product. Second (for goods not produced by the group) because the allocation discourages misreporting. To get an impression of why this is, consider equal efforts. If a person demand more than really needed, then he or she is being served later, because those asking least are being served first. True, after distribution to the first, any surplus (what the first person did not use) will be distributed amongst the rest of the queue. But being served later increases the risk that one's demand is capped.

It has been proved that asking exactly your true needs is most profitable. Also, the present procedure basically is the only way to accomplish this. Here, 'basically' means:, the multiplication by the efforts is generalised and some natural conditions are imposed on the candidate procedures. ${ }^{1}$ For whole breads, the situation is slightly different, as shown next.
${ }^{1}$ Ehlers, L. (2002) On Fixed-Path Rationing Methods, Journal of Economic Theory, vol.106, pp.472-477.

## Distributing amongst individuals (whole bread)

|  | Demanded |  |  |
| :--- | ---: | ---: | ---: |
| Demander | Effort | amount |  |
| Allotment |  |  |  |
| A.Baker $\left({ }^{*}\right)$ | 0,75 | 3 | 2 |
| A.Carpenter $\left(^{* *}\right)$ | 0,8 | 2 | 2 |
| A.Cleaner | 0,6 | 1 | 1 |
| A.Farmer $\left(^{*}\right)$ | 0,85 | 2 | 1 |

If the breads can not be sliced, then the cap is rounded to below at each round. For Cleaner, the cap 11/5 becomes 1 but the allotment stays 1. For Farmer, the cap 1.770833 is rounded to 1 which is less than 2 so Farmer gets 1. To be distributed now is $5-$ $1=4$. Carpenter's percentage $51.6129 \ldots \%$ of 4 yields a cap 2,06..., which when rounded is 2 . This time, Carpenter gets what he or she demands. The remainder 2 is for Baker.

## How about pretending needs for whole loaves of bread?

Again, it has been proved that telling one's true needs is most profitable. The above procedure has a tie break and this can lead one to envy the other. (For example, of two hungry people, one gets the bread.) The present type of procedure also is the only type for which misreporting one's needs is unprofitable, ${ }^{2}$ but it may be inconsistent in a certain sense. ${ }^{3}$
In conclusion, to encourage true reporting of needs when there is not enough, multiple people must be involved.

[^0]
## What if somebody has something in store?

Suppose that it is known how much a particular person has in store of a particular good. Assume also that all efforts are equal to 1 . Then this amount can be accounted for so that telling one's true needs is most profitable. ${ }^{4}$ This has not been implemented because for weights other than 1 , more research is needed.

[^1]
## How about vacation, illness, and idleness?

Suppose a person in on vacation or ill. Then the budget of hours is set to 0 , as are the worked hours. This causes the effort to be undefined. One way to fix this is to move the person to the section where priorities are assigned and to allot a minimum subsistence.

If somebody had a time budget but did not work, or no labour time could be reported, then the effort is zero and a division by zero error will be thrown. One can enter an artificial working time like 0.00001 hour. For allotments, the person will be last in line and get whatever is left over. For indivisible goods, where the last item can be allotted arbitrarily, this does not always work well. Therefore, a priority could be assigned so that the person is served before or after the queue, depending on whether the person breeched a contract or was just unemployed, whether the queue is for water or luxury goods, and so on.

## Computing the distribution using Excel

=allotment(ROW();H\$6;0;G\$6:G\$9;E\$6:E\$9 )


To compute the distribution of rows 6,7,8, and 9, enter the above expression in row 6 . The 0 is for indivisible goods (and a 1 for divisible goods.)

## Computing the distribution (continued)



## Time Pooling

How labour is arranged

## Estimating the time budget

|  |  | Service <br> duration |
| :--- | :--- | :--- | :--- |
| Date | Service | estimate |

The time budget for next week is estimated to be 97. It may also be less to reduce pollution, save time, and so on. See the tabe page ' 7 -day estimates of $A^{\prime}$

## Why not distribute the work beforehand?

To distribute the work, a mechanism as for allocating goods could be used which encourages assistants to faithfully report the expected labour time. However, that may require that people gather every day instead of every week. Also, unexpected work by definition can not be accounted for in advance. So, the following (new) mechanism is proposed.

The word `employee’ has been replaced with `assistant’ and the word 'employer' with client, as their contract need not be legally binding.

See the Excel tab page 'Services of A', that is, of sample group A.

## Summary of the previous week

|  | 7-day 7-day 7-day <br> indiv- indiv- indiv- <br> idual idual idual |  |  |
| :--- | :--- | :--- | :--- |
| Client | total | budget | effort |$|$| A.Baker $\left({ }^{*}\right)$ | 30 | 40 | 0,75 |
| :--- | ---: | ---: | ---: |
| A.Carpenter $\left({ }^{* *}\right)$ | 32 | 40 | 0,8 |
| A.Cleaner | 12 | 20 | 0,6 |
| A.Farmer ( ${ }^{*}$ ) | 34 | 40 | 0,85 |

The right-most column shows the efforts, which have been used for allotment (see the previous slides.) It is the number of labour hours divided by the hours one could work (the budget.)

## The previous Monday and the rest



For the present Monday, the previous Monday is ignored and only $24,24,8$, and 26 are counted. Note: the total of $26+82=108$ was below the group budget 110 .

The first assistant of group A for this Monday

| Client | Requested service | Reques- <br> ted days | Assistant | Start time | Hour registration moment | Hours worked |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A.Farmer (*) | Construct fence |  | A.Carpenter ( ${ }^{* *)}$ | 09:00 | 18:11 | 8 |

A. Farmer wants a wooden fence and A. Carpenter will construct it in 5 days. Monday evening at 18:11, Farmer enters 8 hours for Carpenter, though actually he or she only worked 6 hours.

The next assistants of group A for this Monday

| Client | Requested service | Reques- <br> ted days | Assistant | Start time | Hour <br> regis- <br> tration <br> moment | Hours worked |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A.Farmer (*) | Construct fence |  | A.Carpenter ( ${ }^{* *}$ ) | 09:00 | 18:11 | 8 |
| A.Carpenter (**) | Cleaning |  | A.Cleaner | 09:00 | 18:15 | 4 |
| A.Cleaner | Babysit |  | A.Baker (*) | 09:00 | 18:32 | 2 |

A. Carpenter needs extra cleaning. At 18:15 he or she registers 4 hours for A. Cleaner, who did the job. To do so, Cleaner needed somebody to look after the baby: this was A. Baker, for whom Cleaner records 2 hours.

## The last assistants of group A for this Monday

| Client | Representative of | Requested service | Requested days | Assistant | Start <br> time | Hour registration moment | Hours worked |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A.Carpenter ( ${ }^{* *}$ ) |  | Cleaning |  | A.Farmer (*) | 09:30 | 18:16 | 2 |
| A.Farmer (*) | A | Bake bread | 5 | 5 A.Baker (*) | 12:00 | 18:12 | 6 |
| A.Baker (*) | A | Weeding |  | A.Farmer (*) | 12:00 | 18:40 | 4 |

A. Carpenter also needs cleaning. A. Farmer spent 2 hours on that before he goes weeding (for the community, represented by A. Baker.) And Farmer records 6 hours on behalf of the community for Baker's work. Notice that time is recorded in order of start time with entry time as a tie break.

## Lines in orange when time budget surpassed



As explained at the beginning, the community decided to work 97 hours in 7 days instead of 110 . The previous 6 days, the group worked 82 hours. On Monday, A. Carpenter adds 8, so 90 hours for 7 days, later-on 94 hours etcetera. After the new bound of 97 is hit, the figures turn orange.

## For orange lines, no effort is computed.

| Client | Requested service | Assistant | Hours worked | 7-day <br> indiv- <br> idual <br> total | 7-day <br> indiv- <br> idual <br> budget | 7-day <br> indiv- <br> idual <br> effort |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A.Farmer (*) | Construct fence | A.Carpenter (**) | 8 | 32 | 40 | 0,8 |
| A.Carpenter (**) | Cleaning | A.Cleaner | 4 | 12 | 20 | 0,6 |
| A.Cleaner | Babysit | A.Baker (*) |  | 26 | 40 | 0,65 |
| A.Carpenter ( ${ }^{* *}$ ) | Cleaning | A.Farmer (*) | 2 | $28^{7}$ | 40 |  |
| A.Farmer (*) | Bake bread | A.Baker (*) | 6 | 32 | 40 |  |
| A.Baker (*) | Weeding | A.Farmer (*) | 4 | 32 | 40 |  |

Carpenter recorded 2 hours more than the real labour time, which is 6 . If Farmer lied to Carpenter, then Farmer caused his or her own cleaning or weeding hours not to be counted as effort. If instead, Carpenter tried to make a deal with Farmer, then Carpenter might not find Farmer willing to clean during 2 hours. In any case, the 6 hours of Baker are not counted as effort on Monday (but later-on) so Baker is not amused. However, people generally will not record more than the real labour time to increase the chance of being helped a next moment.

## Summary of the rest of the week

| Client | Representative of | Requested service | Start | Requested days | Assistant | Hours worked |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A.Farmer (*) |  | Construct fence | Tuesday-S | unday | A.Carpenter (** | 24 |
| A.Carpenter |  | Cleaning | Tuesday-S | unday | A.Cleaner | 10 |
| A.Farmer ( ${ }^{*}$ ) | A | Bake bread | Tuesday-S | unday | A.Baker (*) | 20 |
| A.Baker (*) | A | Weeding | Tuesday-S | unday | A.Farmer (*) | 20 |

From Tuesday to Sunday, group A only carries out regular work. No longer does Carpenter record any fake hours. (Would one know that the 2 hours on Monday are fake, then they can not be undone.)

\section*{Eventually, all labour is counted as effort (1) <br> | Client | Assistant | Hours worked | 7-day individual total | 7-day individual budget | 7-day <br> indiv- <br> idual <br> effort | 7-day group total | 7-day <br> group <br> budget |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A.Farmer (*) | A.Carpenter ( ${ }^{* *}$ ) | 20 | 28 | 40 | 0,7 |  |  |
| A.Carpenter ( ${ }^{* *}$ ) | A.Cleaner | 11 | 15 | 20 | 0,75 |  |  |
| A.Farmer (*) | A.Baker (*) | 20 | 28 | 40 | 0,7 |  |  |
| A.Baker (*) | A.Farmer (*) | 20 | 26 | 40 | 0,65 | 97 | 97 |

At the end of the week, group A worked 97 hours, which is exactly equal to the budget. If the budget would have been surpassed, then on the next Monday, the recording of this Monday would be lost for the 7-day interval. However, the hours probably would be counted for a 14 -day interval, as shown in the next slide. So, there is little need to split hours in an amount which fits a budget and one which doesn't.

## Eventuallv, all labour is counted as effort (2)

| Client | Assistant | Hours worked | 14-day <br> indiv- <br> idual <br> total | 14-day <br> indiv- <br> idual <br> budget | 14-day <br> indiv- <br> idual <br> effort | 14-day group total | 14-day <br> group <br> budget |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A.Cleaner | A.Carpenter (**) | 28 | 56 | 70 | 0,8 |  |  |
| A.Baker (*) | A.Cleaner | 15 | 30 | 35 | 0,857 |  |  |
| A.Farmer (*) | A.Baker (*) | 28 | 56 | 70 | 0,8 |  |  |
| A.Baker (*) | A.Farmer (*) | 26 | 52 | 70 | 0,743 | 194 | 200 |

The computation for a 7-day interval is repeated for a 14-day interval. (One is a multiple of the other only to simplify the example.) The group total 194 is below the group budget 200 so the 'effort' includes the hours which had turned orange for the 14-day interval.

## Sample group B: a case of self-service



Sample group B follows a similar pattern, except that B. Painter wants to paint his or her own house as a regular job. However, people cannot register their own hours. B. Butcher, representative of group B, agrees with the paint job on behalf of group B and records the hours.

## Sample group AB: services for A and B jointly

| Client | Representative of | Requested service | Start | Requested days | Assistant | Hours worked |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A.Carpenter ( ${ }^{* *}$ ) |  | Weeding | Monday | 5 | B.Singer | 5 |
| A.Carpenter ( ${ }^{* *}$ ) |  | Rehearse music |  |  |  | 3 |

Meanwhile, A. Farmer needed help weeding from B. Singer, who is from sample group B. The representative of group AB (that is, both groups) is A. Carpenter, so he or she records the hours. Groups $A$ and $B$ also agreed that B. Singer does some vocal rehearsals 3 hours every working day, but not while weeding.

## Sample group C: no relation


B. Carpenter has been extremely tired for a long time and wants to consult C. Doctor, who happens to be a physician of group C which is foreign to $A$ and $B$, that is, of which neither $A$ nor $B$ are part. Then group C lets C. Doctor wait a while to see whether a foreign group other than B wants help. If so, C. Doctor must first help the person from the group $X$ foreign to $C$ which during the last year (say) most helped groups foreign to $X$. So, the rule is that groups prefer the most "altruistic" groups. Therefore, C can expect to profit from its own "altruism" the next time a member of $C$ is in need of help from a group foreign to C.

Conclusion and further steps

## Evaluation

Eranism places an administrative burden on the shoulders of groups, especially because there are many types of goods, several frequencies by which to manage goods, and so on. It is also more complex than at first sight, because people may join or leave a sample group, disputes need to be settled, etcetera. However, it is still utterly simple compared to the present unwieldy monetary system.

Should this system be introduced? More research into alternative distribution of goods and labour is needed, but one may try it out, perhaps as a game.

## What's missing

- Service offers with indication of starting time, duration, candidate assistant, and so on; and contracts, possibly on the basis of these offers. Mechanism which discourage misreporting, the keyword is 'bipartite rationing'.
- An extension to the case that people have goods in stock (see Klaus et al.)
- Administration of secure bounds to the number of labour hours and to the number of objects.
- Central inventory management.
- Authorisation, e.g. who is allowed to enter the maximum labour hours?
- And, of course, a computer program (multi-user database equipped with a user-interface.) It should allow people to participate in multiple economies, like to play around with or to let sample groups overlap at the same level.


## Answered questions

1. Why not have assistant $X$ enter his or her own hours? For, overreporting the hours increases the risk that X can not find help a next moment. (This would be the case if a prospective assistant $Y$ of $X$ foresees that his or her hours will not immediately increase the effort of $Y$.) However, $X$ generally can predict quite well who will be needed and therefore is able to manipulate his or her own labour hours. In contrast, a client will not allow such manipulations because these may not be profitable for him or her.
2. Is the allocation strategy-proof for preferences over multiple goods? Yes, but not necessarily for coalitions, as is the case for a single good. ${ }^{5}$
${ }^{5}$ Morimoto, S.; Serizawa, S.; Ching, S. (2013) A characterization of the uniform rule with several commodities and agents, Social Choice and Welfare, vol. 40, pp.871-911.

## Answered questions (continued)

3. Are hard and easy work counted the same? Not necessarily: the number of hours one is able to work can be made to depend on the kind of work. True, the estimate of such maximum number of labour hours can be corrupted.
4. Does near-unemployment imply being last in queue? That depends, but for equal needs and equal ability to work: yes. The community could agree that study for other work, starting a certain enterprise, applying for a job, all count as labour hours; however, the resulting control system might suffer from the same drawbacks as the social security system. As an alternative, multiplication by weights can be replaced with a more refined formula. (To keep the economy transparent, do not grant a minimum of fake labour hours and such.)

## Answered questions (continued)

5. Is a career possible? Yes, in particular if studying is counted as labour, but aptness for a new job should be measured objectively and not depend on personal influence or the composition of a particular community. Notice that making a career is only an improvement of the content of work, not an increase in salary.
6. Is having a good idea no longer profitable for its creator? Not as profitable as it is in a liberal market, for example, when writing a best selling book or computer program. The elaboration of one's idea is recorded as labour hours if the community agrees, otherwise, it should be in one's spare time and the remuneration would be esteem and such.

The End


[^0]:    ${ }^{2}$ Arribillaga, R.P.; Massó, J.; Neme, A. (2019) All Sequential Allotment Rules Are Obviously Strategy-Proof, Barcelona GSE Working Paper 1108 and UFAE-IAE Working Paper 966.19. Appendix 2.
    ${ }^{3}$ Moulin, H. (1999) Rationing a Commodity along Fixed Paths, Journal of Economic Theory, vol.84, pp.41-72.

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