Deliberated diet

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November 15, 2019

1 Question

We want a practical and concrete question in a fictitious, precise setting. Here is a proposal.

In a fictitious place, a local authority considers building a new public cantine. Should this cantine propose only vegan food?

1. It should propose only vegan food on each of the five days per week that it is open
2. It should propose only vegan food on four days a week and vegan and non-vegan choice on the remaining day
3. Monday vegan
4. Every day choice

TODO ask to ppl knowledgeable in experiments how complete the description of the context should be: specify if the price end consumer price is fixed or depends on the choice of diet, if the funding from the state to the cantine will vary depending on the choice of diet, ...

2 Protocol

Here is a possible protocol aiming to establish the content that will be played to the subject. This is a draft proposal open for discussion.

Assume we have two champions, C_a and C_b.

We ask C_a and C_b for their favorite propositions, defined as t_a and t_b respectively (to choose among items 1 to 4 as defined in section 1). Hopefully, we have chosen C_a and C_b so that t_a and t_b are at opposite ends of the spectrum.

We ask C_a to produce a video in favor of t_a, and label it s_{1a}. We send s_{1a} to C_a. We give C_b a choice: either produce a reply video (arguing for t_b against the video arguing for t_a), or start a new thread in favor of t_b, or both. In the first case, we label the argument s_{1ab}. In the second case, we label the argument s_{1b}. We repeat this scheme ad nauseam. We also run a parallel scheme starting with b instead of a.

Here is a more precise description of the **collection** phase.

- At the start of the whole procedure, both champions are fully informed about the procedure and the future use of their arguments, including about the time constraints (effectively as if they received a copy of this whole document, except possibly with a different form more suitable for easy understanding of their role).

- The naming scheme is such that the last letter of a video indicate the author.

- Define init(α), with $\alpha \in \{a, b\}$, as follows. Precondition: C_α has received no argument of any sort from her opponent. We ask C_α to produce a video in favor of t_α, and label the resulting video $s_{1\alpha}$.

- Define next(α), with $\alpha \in \{a, b\}$, as one plus the greatest integer numbering a start video recorded by α in the whole process so far. For example, if $\alpha = b$, and if a video labeled s_{3b} exists already but no video labeled s_{4b} exists yet, then next(b) = 4.

- Define reply(S), with S a set of previously produced videos by a given champion α, as follows. We address the champion β, with $\beta \neq \alpha$. We send her the videos in S. About one week later, we meet her and let her reply to every videos she wants to reply to by recording new videos. A video replying to another video is labeled by suffixing β to the label of the video it replies to. For example, if $\alpha = a$, when replying to a video labeled s_{1aba}, we label it s_{1abab}. The set of replies may be empty. She

may also start a new video that is not a reply, that we name $s_{k\beta}$, with k equal to next(β).

- We start with init(a) and init(b) in parallel, therefore obtaining s_{1a} and s_{1b}. Define $S_{1a} = \{s_{1a}\}$ and $S_{1b} = \{s_{1b}\}$.
- After having obtained a set of videos S, if $S \neq \emptyset$, we run reply(S), and label the set of resulting videos by suffixing the identifier of their author to the label of S.
- We repeat the previous step, running two threads in parallel whenever possible, until we exhaust both participants.
- When both participants have finished producing videos, we ask them to label briefly (max. x words, TBD) each of their own videos and select an image from the video that becomes its "thumbnail".

Example 1 Here is an example run.

1. We start with init(a) and init(b) in parallel and obtain s_{1a} and s_{1b}. Define $S_a = \{s_{1a}\}$ and $S_b = \{s_{1b}\}$.
2. We apply reply($\{s_{1a}\}$) and obtain $S_{ab} = \{s_{1ab}, s_{2b}\}$.
3. In parallel, we apply reply($\{s_{1b}\}$) and obtain $S_{ba} = \{s_{1ba}\}$.
4. We apply reply(S_{ab}) (as soon as S_{ab} is available) and obtain $S_{aba} = \{s_{1aba}, s_{2ba}, s_{2a}\}$.
5. We apply reply(S_{ba}) (as soon as S_{ba} is available), but C_b sees no need to answer those ridiculous arguments; we obtain $S_{bab} = \emptyset$.
6. We apply reply(S_{aba}) (as soon as S_{aba} is available), where C_b sees an opportunity for answering; we obtain $S_{abab} = \{s_{2bab}\}$.
7. We apply reply(S_{abab}) (as soon as the argument is available), C_a is really fed up with all this circus, and we obtain $S_{ababa} = \emptyset$. □

When the collection phase is over, we start the **adjudicating** phase. We pick an individual i. The individual i is explained by written text that his informed opinon is asked, is explained that two well-known public figures have argued for two options, is explained the context and shown the possible choices, and is asked to spend 60 minutes watching videos from author a and 60 minutes from b to form an opinion, explaining that this permits to give a fair chance to both authors to defend their point of view.

- The phase is composed of **steps**. Each step starts with an associated set of videos "proposed", S_P, and an associated list of videos "seen", S_S. The list S_S is possibly augmented at the end of each step while the set S_P is computed at the start of each step from the list S_S resulting from the previous step.
- At the start, $S_S = \emptyset$.
- A "step" consists in the set S_P being shown to the individual among which he can choose the video he will watch during this step; and he can also watch again videos that are "seen". Each video is displayed as its thumbnail, with its label shown clearly, in a randomized order; the videos from S_S are clearly distinguished and displayed afterwards, in the order they have entered the list (the order they have been marked as "seen"). He clicks on a video and starts watching it. He can navigate in the timeline of the video (a la youtube). The step is finished with one of these possibilities.
  - If the video is watched until the end with no navigation in the timeline, in which case the video is added at the end of S_S.
  - The user can also click to mark the video as seen without having watched it entirely, in which case the video is also added at the end of S_S.
  - The user can also click to stop the video without marking it as seen; in which case S_S is not modified.
- Given a video s, define $r(s)$ as the singleton set containing the reply video to s (thus produced by the other champion than the author of s), if such a video exists, and $\emptyset$ otherwise. For example, $r(s_{2aba}) = \{s_{2abab}\}$ if such a video exists. At the start of a step where the list of videos seen is S_S, S_P is defined as the non-seen videos among the starting videos and the videos replying to a video that has been seen, thus, $S_P = \left(\{s_{k\alpha}, k \in \mathbb{N}, \alpha \in \{a, b\}\} \cup \bigcup_{s \in S_S} r(s)\right) \setminus S_S$.
- We also count the total time spent watching videos from each author. We count the time really spent playing a video, including replays when i has watched several times the same (part of a) video, and thus not counting fully a video that has been partly watched, even if the video has been included in S_S because of an explicit demand from i. When the time allowed to one author has been reached, i may watch only videos from the other author, thus the videos from the first author are not included

any more into S_P. If a video is being watched when the time limit is reached, the video stops. (The individual is shown the remaining time at each moment so this will not be a surprise.)

The individual i may stop watching videos before having spent all the allowed time.

The individual is then asked to choose an answer to the question asked at the start.

3 Think

- Should we let the champions decide which videos they keep? (They might think that some of their videos are much better than others.)
- Once the choice is done, the individual is asked to report which videos were most convincing to him? Asked to select a set of videos that he would propose would be displayed to other individuals to help them deliberate about the issue?
- Cx peut choisir combien de c-a il propose, et la longueur de tous les argumentaires.
- OU i ne peut pas naviguer librement ? On donne un budget temps à chaque C et on navigue avec de l'aléa.
- Penser au risque que Cx en ait marre (ou pense perdre le débat) et refuse qu'on utilise le matériel produit jusque là.

Objectifs à l'issue de cette expérience :

- l'effet du dispositif sur l'avis de la personne : analyser dans quelle mesure les gens changent d'avis
- est-ce qu'on peut raisonnablement dire qu'on a capturé le DJ ? Par exemple, sa position est-elle stable face à des arguments puisés dans une BD ? On pourrait comparer l'affirmation de stabilité sans protocole, ou après le protocole. Ou on pourrait comparer notre protocole à un autre et voir lequel amène à une position stable (donc proche du DJ).
- Determine and validate a procedure to build CAC models?