

### How to use our model:

Step1: open the link <https://www.entropynetwork.com/circularity/co2/>

Step2: allow to access the camera

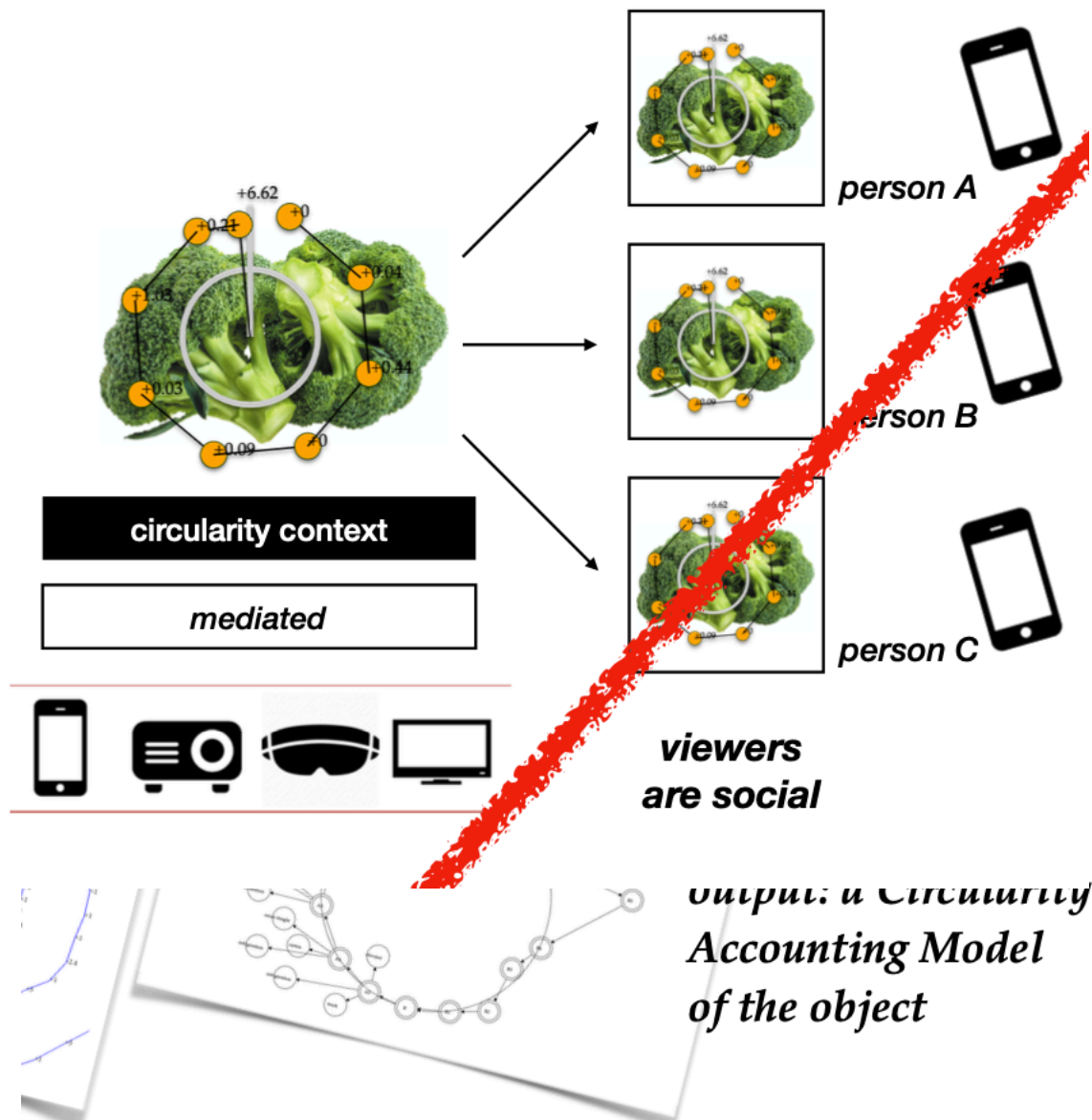
Step3: detect the object

Step4: read the carbon value

We could use our phones to capture objects. Then, we will receive the value of carbon.

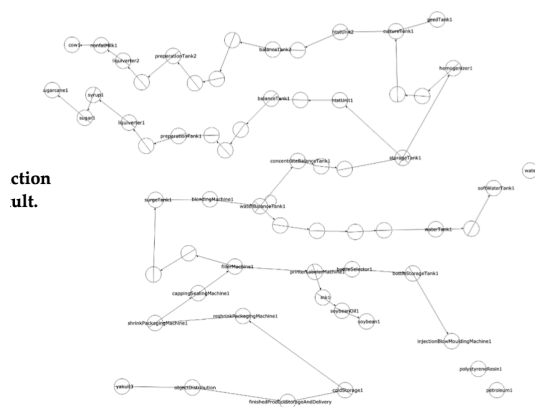
### The detailed process of our model:

We divide the process of building CO2 sequestration networks and vectors into three parts and a total of seven steps by using the machine learning tool of classification, recognition, and deep learning. We will input our image data about an object to train the model and receive the output graph from the trained model. The output graph is the simplified version of the 'circularity' diagram, which shows the carbon values as distances from a circle.

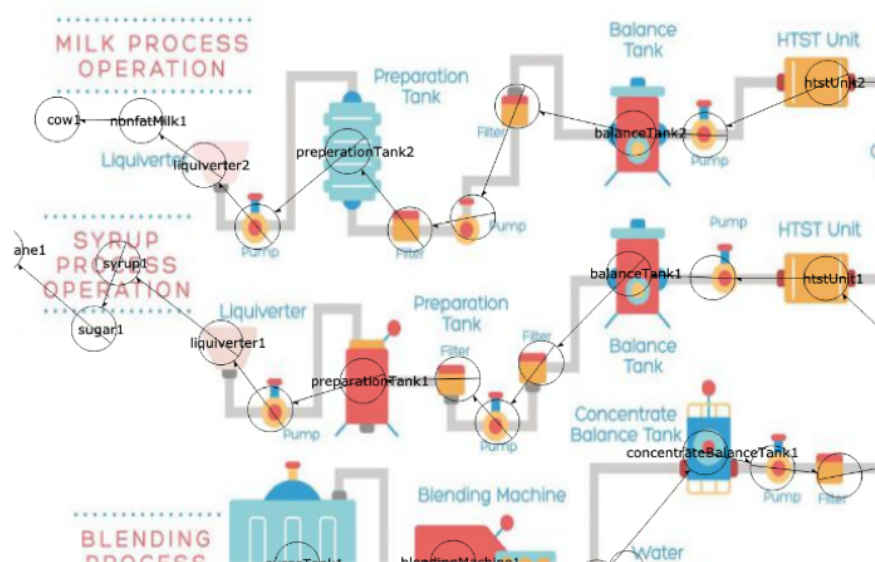


We can make a realistic graph, from the inputs of carbon on the production network of Yakultn as an example to illustrate our process.

We need to convert the graph from the input object graph to the data we need. We describe the supply and disposal chain by conceptualizing and encoding the steps in a supply-disposal chain model. From the consumption vectors, we can make this graph, which shows the inputs of carbon on the production ‘circle’ of blueJeans. The circle is the beginning to the end of the blueJeans product.

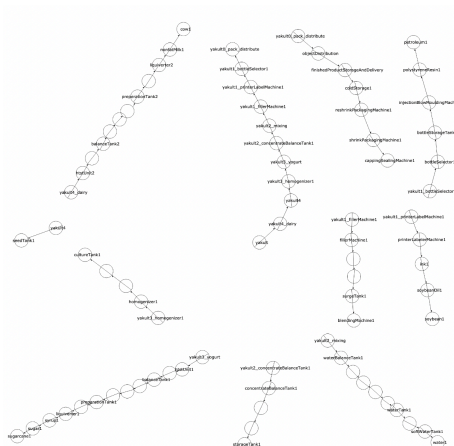


# Yakult Manufacturing

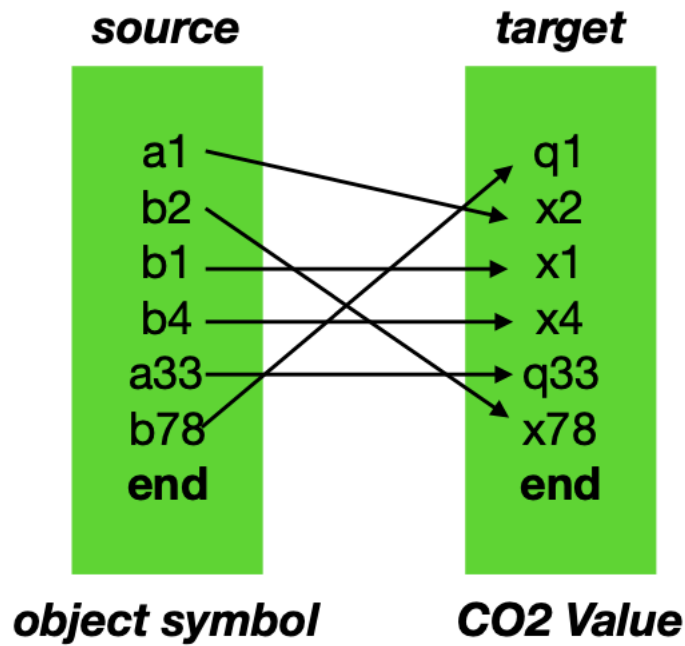


Then, we get consumption vectors (CV) (left picture) from the entropy graph by using this tool <http://www.entropynetwork.com/doc2/?jsonURL=%2Fpub%2Fdata%2Feco2%2F20210910023129-jesse-yakult-CVM-diverge6-segment2-diagram.json&xres=2048&yres=2048&imageURL=> and add the top vector.

From the consumption vectors, we can make this graph (right picture), which shows the inputs of carbon on the production 'circle' of blueJeans. The circle is the beginning to the end of the blueJeans product.



The symbol is a label for an object and the label for several models of that object. There are infinite objects, models, and symbols. After building the consumption vectors graph, we will match our source and target to prepare for the training of our model.



During the process of matching, we need to be careful with the products we may describe the actions of a machine, as in Machine + Protocol. In our model, instead of being domain restricted, we can use general terms, 'Object' or 'Behavior'.

The Symbols which represent positions in the chain can only have one CO2 value. If an object may have multiple CO2 values, it is necessary to create multiple symbols. For example, Person\_DriveCar1 Person\_DriveCar2.

After completing the above steps, we could train and run our model and receive the output graph.



**Input Image Data about an Object**

