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Story of Wheat

# Landing Page

## Story of Wheat

### Part of Education Series: Connect the Dots

#### Author: Mahi islam Pori

### Slide background

#### Function grid (12 + 1)

# Introduction

## Preview Story of Wheat

### Intro text

#### Lead into Knowledge Graph

# Knowledge Graph

## Connect the Dots

### Explain how things are related and share data

#### Nouns (nodes)

#### Verbs (edges)

#### Seven core Relationships (below)

## Highlight Story terms in Knowledge Graph

### Next slides provide detail about Nouns (nodes) and Verbs (edges, relationships)

# Preview

## Relationships

### There are 7 featured relationships as seen here: <https://afdsi.com/collection/collection-carousel/wheat/>

### The diagrams are dense and difficult to read

### Proposal

#### Use only one Relationship diagram rendered as a PNG

#### Use Panning-Media feature (similar to Constellations treatment) to zoom in on parts of the featured Relationship

#### Use Relationship Symbols (below) and Relationship thumbnails on a single page for the remaining 6 Relationships

#### Provide links to zoomable diagrams in Attachment

## Page layout

### See section 8 to visualize page layout, referenced in each section below.

# Relationships

## Causative Relationship

### Relationship Symbol

#### Item, upper left

|  |
| --- |
|  |

#### Definition

##### All relationships producing an effect or being the effect of something. An expression of an agent causing or forcing a patient to perform an action (or to be in a certain condition). Functioning as an agent or cause.

### Function

#### Landscape right

##### H4

###### H5

#### Landscape left

##### Function SVG

### Slide background

#### Complement function diagram

### Resource Link (CTA button - no Attachment)

#### SVG on separate page

#### SVG uses zoom

## Instrumental Relationship

### Relationship Symbol

#### Item, upper left

|  |
| --- |
|  |

#### Definition

##### Indicates all relationships serving or acting as a means or aid. By means of an instrument or an agent. The means whereby some act is accomplished.

### Function

#### Landscape right

##### H4

###### H5

#### Landscape left

##### Function SVG

### Slide background

#### Complement function diagram

### Resource Link (CTA button - no Attachment)

#### SVG on separate page

#### SVG uses zoom

## Partitive Relationship

### Relationship Symbol

#### Item, upper left

|  |
| --- |
|  |

#### Definition

##### For continuants: C part\_of C' if and only if: given any c that instantiates C at a time t, there is some c' such that c' instantiates C' at time t, and c \*part\_of\* c' at t. For processes: P part\_of P' if and only if: given any p that instantiates P at a time t, there is some p' such that p' instantiates P' at time t, and p \*part\_of\* p' at t. (Here \*part\_of\* is the instance-level part-relation.)

### Function

#### Landscape right

##### H4

###### H5

#### Landscape left

##### Function SVG

### Slide background

#### Complement function diagram

### Resource Link (CTA button - no Attachment)

#### SVG on separate page

#### SVG uses zoom

## Quantitative Relationship

### Relationship Symbol

#### Item, upper left

|  |
| --- |
|  |

#### Definition

##### All relationships involving a quantity or a measure.

### Function

#### Landscape right

##### H4

###### H5

#### Landscape left

##### PNG version of SVG

### Slide background

#### Complement function diagram

### Resource Link (CTA button - no Attachment)

#### SVG on separate page

#### SVG uses zoom

## Spatial Relationship

### Relationship Symbol

#### Item, upper left

|  |
| --- |
|  |

#### Definition

### Function

#### Landscape right

##### H4

###### H5

#### Landscape left

##### Function SVG

### Slide background

#### Complement function diagram

### Resource Link (CTA button - no Attachment)

#### SVG on separate page

#### SVG uses zoom

## Taxonomic Relationship

### Relationship Symbol

#### Item, upper left

|  |
| --- |
|  |

#### Definition

##### Relationships linking concepts which are related in the scientifical sense in a bilogical taxonomy (e.g. species, families, etc.). To relate concepts taxonomically.

### Function

#### Landscape right

##### H4

###### H5

#### Landscape left

##### Function SVG

### Slide background

#### Complement function diagram

### Resource Link (CTA button - no Attachment)

#### SVG on separate page

#### SVG uses zoom

## Temporal Relationship

### Relationship Symbol

#### Item, upper left

|  |
| --- |
|  |

#### Definition

### Function

#### Landscape right

##### H4

###### H5

#### Landscape left

##### Function SVG

### Slide background

#### Complement function diagram

### Resource Link (CTA button - no Attachment)

#### SVG on separate page

#### SVG uses zoom

# Transition slide

## Set up: Participants in the Knowledge Graph

# Persona

## Biologist

### Persona image

sameAs: Rice, Wheat

|  |
| --- |
|  |

### Persona description

#### Biologists study humans, plants, animals, and the environments in which they live. Biologists work in laboratories, offices, industrial settings, and outdoors.

### Persona reference

##### https://www.onetonline.org/link/summary/19-1029.04

### Persona attributes

#### Gender

Female

#### Attire

female-dress-tshirt

#### Hair

female-head-hair-hair-short

#### Hat

none

#### Accessories

female-neck-accessories-necklace

### Function

#### SVG center

### Description

#### Text left

##### H4

#### Text right

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### word

### Function concept

#### Miraj Concept/SOL

The below image we can reuse for biologist function svg, a biologist is a plant scientist, so he/she works with DNA, RNA, cells, hybridization etc.

|  |
| --- |
|  |

## Breeder

### Persona image

|  |
| --- |
|  |

sameAs: Rice, Wheat

### Persona description

#### Apply information about plant genome, hormones, proteins and their effects to modulate plant height, branching, tiller size and canopy features. So that a resultant modulated wheat plants with higher yield can be produced.

### Persona reference

#### https://www.onetonline.org/link/summary/19-1013.00

### Persona attributes

#### Gender

Male

#### Attire

male-dress-t-shirt

#### Hair

male-head-hair, male-head-hair-facial-mustache-full

#### Hat

none

#### Accessories

male-head-accessory-sun-glasses

### Function

#### SVG center

### Description

#### Text left

##### H4

##### H4

#### Text right

##### H4

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### Phenotypes

##### Target chromosomes

#### Option

##### iFrame Wedge Server Glucosinolate to illustrate study data integration

### Function concept

#### Miraj Concept/SOL:

The below image we can use for breeder function svg.

|  |
| --- |
| Wheat phenotypes (generalize; use text-left and text right to identify phenotype properties) |
|  |

## Grower (Farmer)

### Persona image

|  |
| --- |
|  |

### Persona description

#### Raise crops, such as corn, wheat, tobacco, cotton, vegetables, fruits.

### Persona reference

#### https://www.bls.gov/ooh/management/farmers-ranchers-and-other-agricultural-managers.htm

### Persona attributes

#### Gender

Male

#### Attire

male-dress-unbuttoned-shirt, pocket

#### Hair

male-head-hair, male-head-hair-facial-mustache-trim

#### Hat

male-head-hat-sun-protecting-hat

#### Accessories

none

### Function

#### SVG center

### Description

#### Text left

##### H4

#### Text right

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### Plant identity

##### Plant monitoring (growth stages)

##### Plant protection (specific threats like virus and bacteria)

### Function concept

#### Miraj Concept/SOL

The below image we can use for Grower (Farmer), a farmer collect wheat growth data, Crop fertilizer ingredients, crop monitor etc.

|  |  |  |
| --- | --- | --- |
| Generalize. add elevation (perspective); remove mountains |  |  |
| Drones Revolutionize Farmer's Lives | Drone as monitor (data collector and controllable actions)  Drone as agricultural equipment (performing specific actions) | drone Icon 5303193 |

## Grain Handlers

### Persona image

|  |
| --- |
|  |

### Persona description

#### <missing>

### Persona reference

#### https://www.onetonline.org/link/summary/51-9061.00

### Persona attributes

#### Gender

Female

#### Attire

female-dress-blouse

#### Hair

female-head-hair-hair-full

#### Hat

female-head-hat-sun-protecting-hat

#### Accessories

female-head-face-face-mask

### Function

#### SVG center

### Description

#### Text left

##### H4

##### H4

#### Text right

##### H4

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### Sensors

##### Moisture

##### CO2

##### Temperature

##### Use charts

### Function concept

#### Miraj Concept/SOL

The below image we can use for grain handlers SVG function, A grain handler work is undertake unloading and loading, weighing, and storing of grain at receive sites, quality control and maintenance for crops like wheat, rice etc.

|  |  |  |  |
| --- | --- | --- | --- |
| Storage | Moisture | Carbon Dioxide | Temperature |
|  |  |  |  |

## Grain Blender

### Persona image

|  |  |
| --- | --- |
|  | If milling your own fresh-ground flour isn't exciting enough, let's explore other things your grain mill can do! From cracked grains for delicious breakfast porridge and bean flour to spices and powdered sugar, watch, listen, or read to discover how easy and fun it is to use your grain mill for more than just flour! |
|  | https://traditionalcookingschool.com/q-a/askwardee/home-grain-milling-101-the-basics-aw-097/ |

### Persona description

#### grain blending simply involves the dilution of high quality grain with a small volume of lower-quality grain to while maintaining the minimum standards for the higher quality grain.

### Persona reference

###### https://www.onetonline.org/link/summary/51-9061.00

### Persona attributes

#### Gender

Female

#### Attire

female-dress-lab-coat

#### Hair

female-head-hair-hair-short

#### Hat

none

#### Accessories

female-head-face-lab-security-lab-goggles

### Function

#### SVG center

### Description

#### Text left

##### H4

##### H4

#### Text right

##### H4

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### Near InfraRed (NIR) analysis

##### Fingerprint (identity)

##### Reuse Google Sheets fingerprint data

### Function concept

#### Miraj Concept/SOL:

The below image we can use for grain blender svg function, A grain blender grain blending simply involves the dilution of high quality grain with a small volume of lower-quality grain to while maintaining the minimum standards for the higher quality grain crops like wheat, rich etc.

|  |  |
| --- | --- |
| Biological fingerprints for identity | Blended to meet customer specifications |
| Fingerprint background, id pattern, finger print vector color line texture,  thumbprint bio background. | CanStock |  |

## Miller

### Persona image

|  |  |
| --- | --- |
|  |  |

### Persona description

#### Operate a mill, a machine to grind a grain (for example corn or wheat) to make flour.

### Persona reference

#### https://esco.ec.europa.eu/en/classification/occupation?uri=http://data.europa.eu/esco/occupation/db25e659-d77c-4f4a-a8a2-ee199d060345

### Persona attributes

#### Gender

Male

#### Attire

male-dress-round-t-shirt

#### Hair

male-head-hair, male-head-hair-facial-mustache-full

#### Hat

male-head-hard-hat

Accessories

none

### Function

#### SVG center

### Description

#### Text left

##### H4

##### H4

#### Text right

##### H4

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### Bran for animal feed (for farmer)

##### Flour for human food (for baker)

##### Barley for beer (for brewer)

### Function concept

#### Miraj Concept/SOL

The below image we can use for miller svg function. The miller work wheat is grounded by a machine that crushes it into pieces. It is then put through sifters from which the meal obtained is processed further with repeated grinding and sifting. Then, the meal becomes fine flour, wheat germ and wheat bran.

|  |
| --- |
| Creating specific grain products |
|  |
|  |

## Brewer (Manufacturer, food)

### Persona image

|  |  |
| --- | --- |
|  |  |
|  | https://reunionbrewery.com/about |

### Persona description

#### Missing

### Persona reference

#### https://www.onetonline.org/link/summary/19-4013.00

### Persona attributes

#### Gender

Male

#### Attire

male-dress-round-tshirt

#### Hair

male-head-hair, male-head-hair-facial-mustache-full-beard-full

#### Hat

male-head-hat-hat-normal

#### Accessories

none

### Function

#### SVG center

### Description

#### Text left

##### H4

##### H4

##### H4

#### Text right

##### H4

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### Word

##### Word

### Function concept

#### Miraj Concept/SOL

The below image we can use for brewer svg function. A brewer work process, the beer brewing process involves malting, milling, mashing, extract separation, hop addition and boiling, removal of hops and precipitates, cooling and aeration, fermentation, separation of yeast from young beer, aging, and maturing.

|  |  |  |
| --- | --- | --- |
| Barley beers | Wheat beers | Wheat beers |
| Similar to Wheat except use word “Barley” | Brewing with Wheat: Hieronymus, Stan: 9780937381953: Amazon.com: Books | Wheat Beer from Scratch | How to Brew Everything - YouTube |

## Baker (Manufacturer, food)

### Persona image

|  |
| --- |
|  |

### Persona description

#### Create recipes. Ordering ingredients. Produce breads, cakes, pastries, pies, cookies and other goods.

### Persona reference

#### https://www.onetonline.org/link/summary/51-3011.00

### Persona attributes

#### Gender

Female

#### Attire

female-dress-chef-cloth

#### Hair

female-head-hair-hair-short

#### Hat

female-head-hat-chef-hat

#### Accessories

none

### Function

#### SVG center

### Description

#### Text left

##### H4

##### H4

#### Text right

##### H4

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### Grain by type

###### For pastry

###### For pasta

###### For bread, whole wheat

###### For breakfast cereals

### Function concept

#### Miraj Concept/SOL

Bread, Pizza, Pasta image we can use for baker svg function. A baker is chef of food, like breakfast food, Pizza, Pasta, Bread etc.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Pastry | Pasta | Bread | Pizza | Breakfast cereal |
| pastry Icon 4504874 | pasta Icon 2389841 | bread Icon 5300644 | pizza slice Icon 1204550 | cereal Icon 195379 |

## Information Manager

### Persona image

|  |
| --- |
|  |

sameAs: Rice, What

### Persona description

#### Oversee and implement organization-wide information systems. Responsible for ensuring smooth operations and protecting valuable data and information.

### Persona reference

#### https://www.onetonline.org/link/summary/15-1299.09

### Persona attributes

#### Gender

Female

#### Attire

female-dress-formal-business-coat

#### Hair

female-head-hair-hair-full-hair-ribbon

##### Hat

none

##### Accessories

female-neck-accessories-necklace,

### Function

### Comment:

we can reuse “story of rice” Information manager function SVG for “story of wheat”.

#### SVG center

### Description

#### Text left

##### H4

##### H4

#### Text right

##### H4

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### Elevator data

##### NL data

##### Word

### Function concept

#### Miraj Concept/SOL

here we can use for Information manager svg function data collect image , A Information manger collect all data and collecting data gathering, storing, distributing.

|  |  |
| --- | --- |
| Data from breeder, grower, blender, bulk storage, miller, feed manufacturer, feed manufacturer |  |
|  | Gernalize diagram on left (less detail)  Prepare/anticipate this diagram  https://benetta.net/\_supplier/mahi/svg-projects/personas-data/ |

## Nutritionist

### Persona image

|  |
| --- |
|  |

sameAs: Rice, Wheat

### Persona description

#### A nutritionist may work on weight loss, nutritional or hormonal balance, digestion, or food allergies.

#### Clinic dietitians most frequently (40%) wear khaki pants and collared knit shirt while hospital dietitians most frequently (42%) wear slacks and collared shirt.

### Persona reference

#### https://www.onetonline.org/link/summary/29-1031.00

### Persona attributes

#### Gender

Female

#### Attire

female-dress-clothing-blouse

#### Hair

female-head-hair-hair-full

#### Hat

None

#### Accessories

female-head-accessories-earrings, female-head-accessories-hair-band

### Function

#### SVG center

### Description

#### Text left

##### H4

##### H4

#### Text right

##### H4

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### Word

##### Word

### Function concept

#### Miraj Concept/SOL

We can reuse rice SVG Nutrition function.

|  |  |
| --- | --- |
| Could reuse Rice Nutrition Function | Rethink alternative |
|  | nutrition Icon 4582828 |

## Government Administrator

### Persona image

|  |
| --- |
|  |

#### Issue

Looks like …

### Persona description

#### Regulatory; policy administration.

### Persona reference

#### https://www.onetonline.org/link/summary/15-2051.00

### Persona attributes

#### Gender

Male

#### Attire

male-dress-office-coat, male-dress-tie, male-dress-shirt

#### Hair

male-head-hair, male-head-hair-facial-mustache-trim, male-head-hair-facial-beard-trim

#### Hat

none

#### Accessories

male-head-accessory-sun-glasses

### Function

#### SVG center

### Description

#### Text left

##### H4

##### H4

#### Text right

##### H4

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### Use EU data portal terms

##### Use EU data portal API

##### Word

### Function concept

#### Miraj Concept/SOL

Government Administrator provides some rules, Consumer Rights, Food quality control etc. so rules, Consumer Rights, Food quality control related image we can use for Government Administrator function SVG.

|  |  |  |
| --- | --- | --- |
| Image: Objective Description Wheat (USDA document cover) | Image: Wheat Inspection Policies (USDA Document cover) | Additional Regulatory-related Image (document cover) |

## Traders (Exporters/Importers)

### Persona image

|  |
| --- |
|  |

sameAs: Rice, Wheat

### Persona description

#### Traders participate in financial markets by buying and selling stocks, futures, forex, and other securities, and by closing out positions with the intention of making small, frequent gains

### Persona reference

#### https://www.onetonline.org/link/summary/13-2099.01

### Persona attributes

#### Gender

Male

#### Attire

male-dress-office-coat, male-dress-shirt, male-dress-tie

#### Hair

male-head-hair, male-head-hair-facial-mustache-full, male-head-hair-facial-beard-trim

#### Hat

none

#### Accessories

male-head-accessory-stylish-sun-glasses, male-dress-coat-over-coat- pocket-hand-kerchief

### Function

#### SVG center

### Description

#### Text left

##### H4

##### H4

#### Text right

##### H4

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### Product identity for Buy/Sell contracts

##### Currencies

##### Export/Import regulations and tariffs

### Function concept

#### Miraj Concept/SOL

The below image we can use for trader svg function. Trader can crops/ others import and export. He collects data to benefit his business.

|  |  |
| --- | --- |
| Data Dashboards | Visual Organization Campaign | IGW | Simplify Trader Function diagram  Somehow introduce currency  May want to feature Product Passport as the Electronic Trading Document |
|  |  |

### Related to Traders (TBD)

#### Product Passport

##### Product Passport logo

#### Electronic Record

##### Objective Description of Wheat

##### Wheat and Flour Testing Methods

#### Attachment

##### Google Doc PDF: Objective Description of Wheat

##### Google Doc PDF: Wheat and Flour Testing Methods

## Consumer

### Persona image

|  |
| --- |
|  |

### Persona description

#### Pays to consume goods and services.

### Persona reference

#### Missing

### Persona attributes

#### Gender

Female

#### Attire

female-dress-clothing-blouse-sleeveless,

#### Hair

female-head-hair-hair-short

#### Hat

none

#### Accessories

female-head-accessories-earring-single

### Function

#### SVG center

### Description

#### Text left

##### H4

##### H4

#### Text right

##### H4

##### H4

### Slide background

#### Complement function diagram

### Attachment

#### Key words

##### Word

##### Word

##### Word

### Function concept

#### Miraj Concept/SOL

we can wheat manufacturer bag image use for consumer svg function. Example: sack of flour, sack of rice etc.

|  |
| --- |
| Display different grain products; consider: repeating diagrams from Food Manufacturer |

# Page Layout (grid)

## Function

|  |  |  |
| --- | --- | --- |
| 1 | 2 | 3 |
| 4 | Integrated data  Integrated queries | 5 |
| 6 | 7 |
| 8 | 9 |
| 10 | 11 | 12 |

## Persona

|  |  |  |
| --- | --- | --- |
| 1 | 2 | 3 |
| 4 | Collaboration among teams  Information Sharing | 5 |
| 6 | 7 |
| 8 | 9 |
| 10 | 11 | 12 |

# Open Issues

## Technical documents

### Semantic documents

#### LODE for ontologies

#### JSON-LD and SMV

#### GS1 integration

### Wheat ontology

#### Target: Information Manager

### Wheat Traits ontology

#### Target: Breeder

#### Chromosomes

### Beer ontology

#### Target: Brewer

## iFrame

### Wedge-Client

#### Breakfast cereal marketing images

### Wedge-Server

#### ChEFS

##### Target: Nutritionist

#### ChEMATIC

##### Target: Nutritionist

###### Selenium

#### FNDDS

##### Target: Nutritionist

##### Target: Baker

### Non-wedge

#### NALT

##### Target: Information Manager

## Google docs

### USDA Objective Description of Wheat

### USDA Wheat Inspections

#### Target: Government Administrator