CLAIMS:

1. A computer-implemented method for specifying logical validation rules, the method including:

generating by a data processing system, one or more logical validation rules having one or more term fields populated with one or more business terms, the one or more logical validation rules specifying one or more operations to be applied to one or more values of one or more fields of structured data records in a dataset, by:

populating the one or more term fields of the one or more logical validation rules with one or more business terms from one or more business term fields in a mapping that defines a mapping among fields in the structured data records in the dataset to the one or more business term fields; and

saving, in computer storage by the data processing system, the one or more logical validation rules, with at least some of the one or more business term fields in the mapping referencing the one or more logical validation rules;

automatically selecting at least one logical validation rule saved in the computer storage by the data processing system, to process one more structured data records of the dataset, with the selecting based on the mapping among the fields in the structured data records in the dataset to the one or more business term fields;

applying the selected at least one logical validation rule to at least one value identified by the mapping;

for a particular dataset, calculating, based on the applying, a measure of quality of that particular dataset; and

if the measure of quality for that particular dataset fails to meet a threshold level, generating one or more alerts of the measure of quality failing to meet the threshold level.

2. The computer-implemented method of claim 1, wherein a business term field includes a first business term field and at least one of the one or more fields includes a first field, wherein the logical validation rule further applies operations based on a

second business term field; and the mapping further includes a mapping between a second field and the second business term field.

3. The computer-implemented method of claim 2, wherein the logical validation rule includes one or more validation tests, and application of a first validation test of the one or more validation tests to the first business term field is based on the second business term field.

4. The computer-implemented method of any one of claims 1 to 3, further including storing in memory the mapping defines the mapping among fields in the structured data records in the dataset and the business term fields.

5. The computer-implemented method of any one of claims 1 to 4, further including

identifying, in a structured data record from an accessed dataset, a particular field mapped to a particular business term field in the mapping;

determining, that the particular business term field references the one or more logical validation rules; and

applying the selected one or more logical validation rules to at least one value of the particular field identified by the mapping.

6. The computer-implemented method of any one of claims 1 to 5, further including presenting a list of potential logical rules based on the mapping among fields in the structured data records in the dataset and business term fields.

7. The computer-implemented method of any one of claims 1 to 6, further including:

transmitting the one or more alerts to one or more systems.

8. A computer storage medium encoded with executable computer program instructions that when executed by one or more computers cause the one or more computers to perform operations comprising:

generating one or more logical validation rules having one or more term fields populated with one or more business terms, the one or more logical validation rules specifying one or more operations to be applied to one or more values of one or more fields of structured data records in a dataset, by:

populating the one or more term fields of the one or more logical validation rules with one or more business terms from one or more business term fields in a mapping that defines a mapping among fields in the structured data records in the dataset to the one or more business term fields; and

saving, in computer storage, the one or more logical validation rules, with at least some of the one or more business term fields in the mapping referencing the one or more logical validation rules;

automatically selecting at least one logical validation rule saved in the computer storage to process one more structured data records of the dataset, with the selecting based on the mapping among the fields in the structured data records in the dataset to the one or more business term fields;

applying the selected at least one logical validation rule to at least one value identified by the mapping;

for a particular dataset, calculating, based on the applying, a measure of quality of that particular dataset; and

if the measure of quality for that particular dataset fails to meet a threshold level, generating one or more alerts of the measure of quality failing to meet the threshold level.

9. The medium of claim 8, wherein a business term field includes a first business term field and at least one of the one or more fields includes a first field, wherein a logical validation rule further applies operations based on a second business term field, and the mapping further includes a mapping between a second field and the second business term field.

10. The medium of claim 9, wherein the logical validation rule includes one or more validation tests, and application of a first validation test of the one or more validation tests to the first business term field is based on the second business term field.

11. The medium of any one of claims 8 to 10, wherein the operations further include storing in memory the mapping that defines among fields in the structured data records in the dataset and the business term fields.

12. The medium of any one of claims 8 to 11, wherein the operations further include:

identifying, in a structured data record from an accessed dataset, a particular field mapped to a particular business term field in the mapping;

determining, that the particular business term field references the one or more logical validation rules; and

applying the selected one or more logical validation rules to at least one value of the particular field identified by the mapping.

13. The medium of any one of claims 8 to 12, wherein the operations further include presenting a list of potential logical validation rules based on the mapping among the fields in the structured data records in the dataset and business term fields.

14. The medium of any one of claims 8 to 13, wherein the operations further include:

transmitting the one or more alerts to one or more systems.

15. A system comprising:

one or more computers and one or more storage devices storing instructions that are operable, when executed by the one or more computers, to cause the one or more computers to perform operations comprising:

generating one or more logical validation rules having one or more term fields populated with one or more business terms, the one or more logical validation rules specifying one or more operations to be applied to one or more values of one or more fields of structured data records in a dataset, by:

populating the one or more term fields of the one or more logical validation rules with one or more business terms from one or more business term fields in a mapping that defines a mapping among fields in the structured data records in the dataset to the one or more business term fields; and

saving, in computer storage, the one or more logical validation rules, with at least some of the one or more business term fields in the mapping referencing the one or more logical validation rules;

automatically selecting at least one logical validation rule saved in the computer storage to process one more structured data records of the dataset, with the selecting based on the mapping among the fields in the structured data records in the dataset to the one or more business term fields;

applying the selected at least one logical validation rule to at least one value identified by the mapping;

for a particular dataset, calculating, based on the applying, a measure of quality of that particular dataset; and

if the measure of quality for that particular dataset fails to meet a threshold level, generating one or more alerts of the measure of quality failing to meet the threshold level.

16. The system of claim 15, wherein a business term field includes a first business term field and at least one of the one or more fields includes a first field, wherein a logical validation rule further applies operations based on a second business term field, and the mapping further includes a mapping between a second field and the second business term field.

17. The system of claim 16, wherein the logical rule includes one or more validation tests, and application of a first validation test of the one or more validation tests to the first business term field is based on the second business term field.

18. The system of any one of claims 15 to 17, wherein the operations further include storing in memory the mapping among fields in the structured data records in the dataset and the business term fields.

19. The system of any one of claims 15 to 18, wherein the operations further include identifying, in a structured data record from an accessed dataset, a particular field mapped to a particular business term field in the mapping;

determining, that the particular business term field references the one or more logical validation rules; and

applying the selected one or more logical validation rules to at least one value of the particular field identified by the mapping.

20. The system of any one of claims 15 to 19, wherein the operations further include presenting a list of potential logical validation rules based on the mapping among the fields in the structured data records in the dataset and business terms fields.

21. The system of any one of claims 15 to 20, wherein the operations further include:

transmitting the one or more alerts to one or more systems.

22. A system comprising:

means for generating one or more logical validation rules having one or more term fields populated with one or more business terms, the one or more logical validation rules specifying one or more operations to be applied to one or more values of one or more fields of structured data records in a dataset, by:

means for populating the one or more term fields of the one or more logical validation rules with one or more business terms from one or more business term fields in a mapping that defines a mapping among fields in the structured data records in the dataset to the one or more business term fields and for saving, in computer storage, the one or more logical validation rules, with at least some of the one or more business term fields in the mapping referencing the one or more logical validation rules;

means for automatically selecting at least one logical validation rule saved in the computer storage to process one more structured data records of the dataset, with the selecting based on the mapping among the fields in the structured data records in the dataset to the one or more business term fields;

means for applying the selected at least one logical validation rule to at least one value identified by the mapping;

means for calculating, for a particular dataset and based on the applying, a measure of quality of that particular dataset; and

means configured to generate one or more alerts if the measure of quality for that particular dataset fails to meet a threshold level.

23. The system of claim 22, further including:

transmitting the one or more alerts to one or more systems.