



The Center for  
Access to Justice & Technology  
AT CHICAGO-KENT COLLEGE OF LAW

# A2J Author®

## Field Types v. Variable Types

# Field Types v. Variable Types

- ▶ **What is the Difference?**
- ▶ Field Types
  - Categories
  - Field Properties
  - Field Templates
  - Gender – Field of It's Own
- ▶ Variable Types
  - Categories
  - Gender – Variable of It's Own
  - Variable Naming
- ▶ Matching Field & Variable Types
- ▶ Additional Resources



# What is the Difference?

- ▶ Field Type: Format of the data entry area where end-users enter information.
- ▶ Variable Type: How data should be treated once entered by end-user.

The composite image illustrates the difference between Field Type and Variable Type through three examples:

- Field Type Example:** A screenshot of a form with a "Birth Date:" label. The input area is a date picker with dropdowns for month (mm), day (dd), and year (yyyy). A red box highlights this input area, and a red arrow points from the "Field Type" definition to it.
- Field Type Example:** A screenshot of a form with an "Employer Name:" label. The input area is a simple text box. A red box highlights this input area, and a red arrow points from the "Field Type" definition to it.
- Variable Type Example:** A screenshot of a form with a question "What are your job duties?" and a list of radio buttons: Single, Married, Separated, Divorced, and Widowed. A red box highlights the radio buttons, and a red arrow points from the "Variable Type" definition to it.

**Variable Table:**

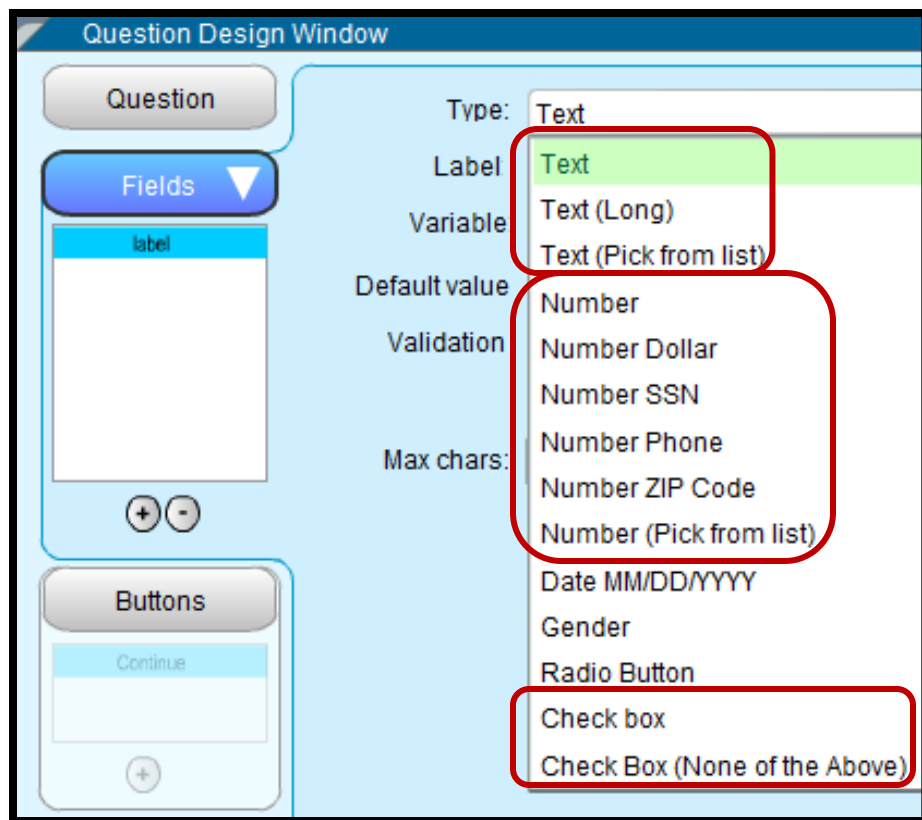
Used	Name	Type	Rep
1	Cash TF	True/False	F
1	Client age NU	Number	F
1	Client birth date DA	Date	F
1	Client checking TF	True/False	F
1	Client first name TE	Text	F
0	Client last name TE	Text	F
0	Client middle name TE	Text	F

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# Field Type Categories



- ▶ There are six basic field types categories
  - Text (optional field designs)
  - Number (optional field designs)
  - Date
  - Gender
  - Radio Button
  - Checkbox (“None of the Above” allows the end-user to answer without selecting an actual answer)



# Field Properties

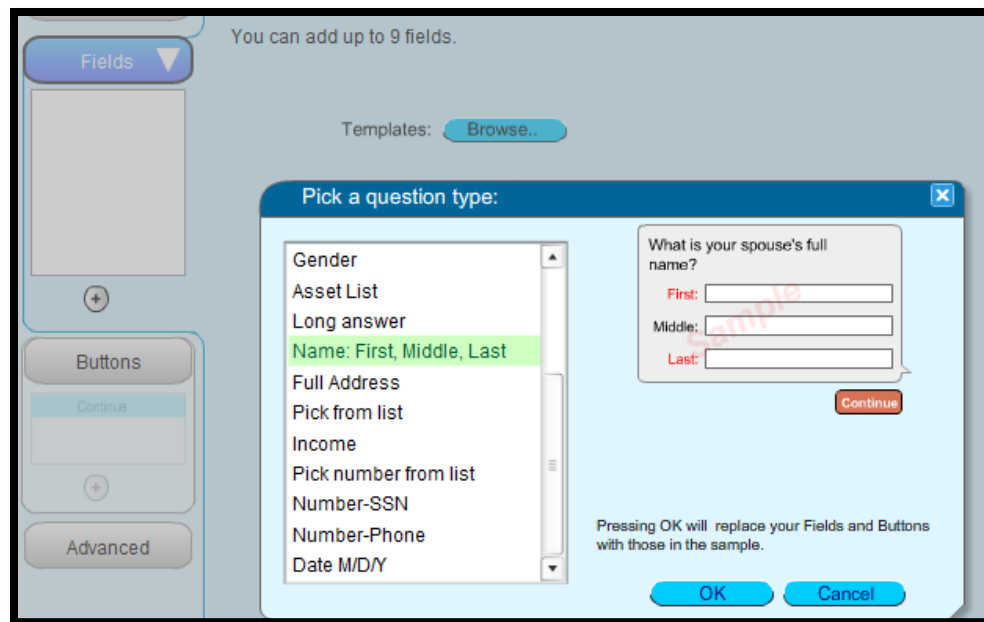
- ▶ Every field type has three properties which need to be defined: **Type**, **Label** and **Variable**
- ▶ **Default Value**: set a “default value” for most field types except Checkboxes and Gender. (value appears in the field, but end-user can enter alternate value)
- ▶ **Validation**: require the user to give an answer or allow them to leave it blank. “User may leave blank” is the default setting.
- ▶ **Other properties**: field types may have additional optional properties such as “max characters,” “limit values,” “calculator,” and “calendar.”

The screenshot shows the 'Question Design Window' interface. On the left, there is a 'Fields' section with a dropdown menu and a preview of a form with fields for 'Employer Name', 'County', and 'What are your job duties'. The 'County' field is highlighted. On the right, the 'Properties' section is visible, with several fields highlighted by red boxes: 'Type' (Text (Pick from list)), 'Label' (County:), 'Variable' (Employer county MC), 'Default value' (Cook), and 'Validation' (User may leave blank). The 'List' section is set to 'Customized List' and 'Order List' is set to 'Ascending'. The 'Validation' section has two radio buttons: 'User may leave blank' (selected) and 'User must fill in'.



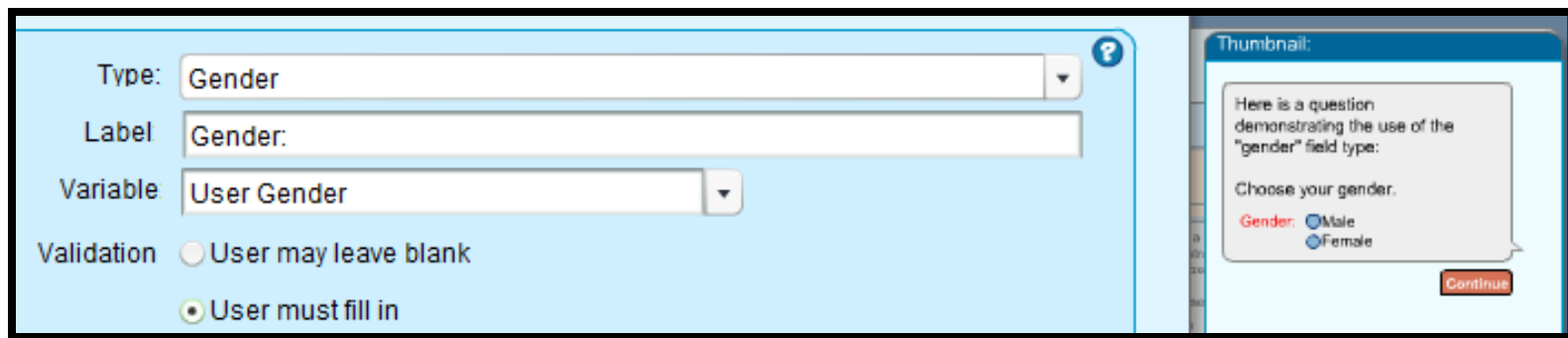
# Field Templates

- ▶ A2J Author has 18 field templates. Scroll list to see a preview.
- ▶ Templates might create multiple fields with one click.
- ▶ **Be careful!**  
Templates create variables.



# Gender – Field of It's Own

- ▶ User Gender is collected to create an avatar of the end-user.
- ▶ Gender field appears as Radio Buttons.



The screenshot shows a configuration panel for a 'Gender' field. On the left, the 'Type' is set to 'Gender', the 'Label' is 'Gender:', and the 'Variable' is 'User Gender'. Under 'Validation', the option 'User must fill in' is selected. On the right, a 'Thumbnail' preview shows a question: 'Choose your gender.' with radio buttons for 'Male' and 'Female', and a 'Continue' button.

- ▶ When selecting the Gender field, the Label, Variable and Validation properties are pre-set.





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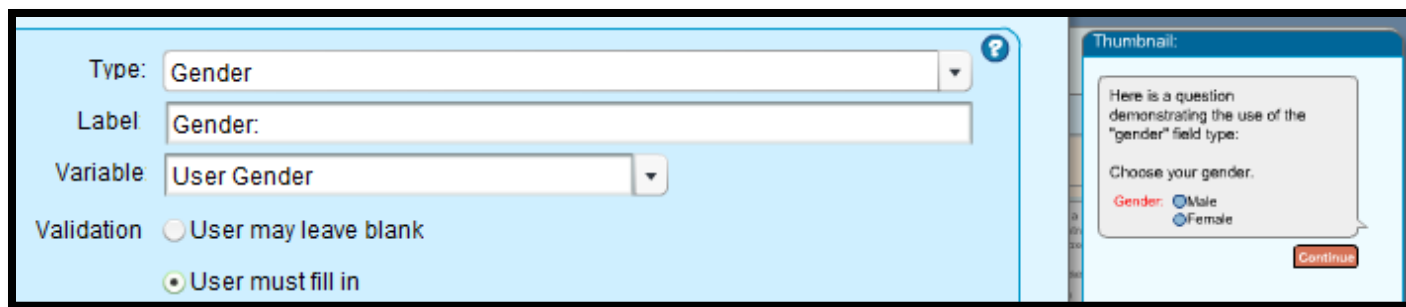
# Variable Type Categories

- ▶ Variable type determines how the data collected will be evaluated.
- ▶ **A2J Author 6 Variable Types:**
  - **Text:** Stores data to be treated as text (including numbers like SSN).
  - **Number:** Stores data that needs to be evaluated ( $[Children\ NU] > 1$ ) or used in a calculation ( $[Income\ amount\ NU] + [Benefits\ amount\ NU]$ ).
  - **Date:** Stores dates. Could store date as text, but date fields allows calculations such as ( $[Filing\ date\ DA] + 90$ ).
  - **True/False:** Stores value of “true” or “false” only.
  - **Multiple Choice:** Stores a single value from set of options.
  - **Unknown:** Default setting when unsure of variable types (assigned to variables created with buttons).
- ▶ **Special Program Variables:** User Avatar, User Gender, A2J Step (1-12), A2J Navigation TF, A2J Interview Incomplete TF.

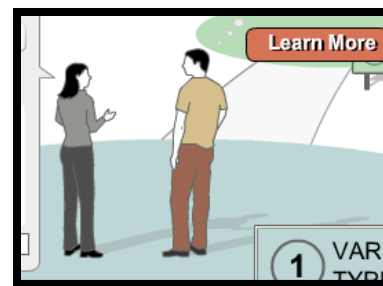


# Gender – Variable of It's Own

- ▶ Gender variable name is pre-set as “User Gender.”



- ▶ “User Gender” is the only variable that can create an avatar of the end-user.
- ▶ “User Gender” is a Text variable type.



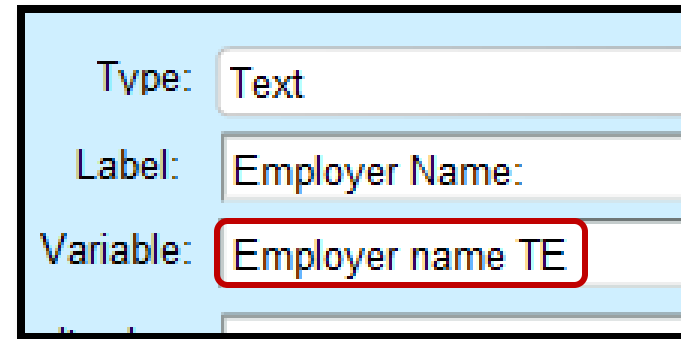
- ▶ If HotDocs variable has a different name use the Advanced Tab.



# Variable Naming

▶ **Community standard variable naming convention:**

- Capitalize the first letter of first word only.
- Spaces between words.
- Include 2 letter abbreviation for the variable type at the end.



The image shows a screenshot of a form configuration interface. It has a light blue background. There are three rows of configuration options, each with a label on the left and a text input field on the right. The first row is 'Type: Text'. The second row is 'Label: Employer Name:'. The third row is 'Variable: Employer name TE', where the text 'Employer name TE' is enclosed in a red rectangular border.

▶ **Variable Naming Examples:**

- Text : User full address TE
- Number: User age NU
- Date: Court date DA
- True/False: Married TF
- Multiple Choice: Income type MC



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# Matching Field & Variable Types

- ▶ **Field type does not always match Variable type**
- ▶ Text (pick from list) is a multiple choice variable type.
- ▶ Number fields gathering data that is not used for evaluation or computation are matched with Text variable types. (SSN, Phone, ZIP)
- ▶ Checkboxes are a series of individual True/False variables, not a multiple choice variable.



# Matching Field & Variable Types

- ▶ A2J Author defaults variables created with new fields as the most appropriate variable type.
- ▶ Chosen A2J Author Field Type = A2J Author Default Variable Type
  - Text = Text
  - Text (Pick from list) = Multiple Choice
  - Text (Long) = Text
  - Number = Number
  - Number Dollar = Number
  - Number SSN = Text
  - Number Phone = Text
  - Number ZIP Code = Text
  - Number (Pick from list) = Number (notice different from “Text pick from list”)
  - Date MM/DD/YYYY = Date
  - Gender = Gender
  - Radio Button = Multiple Choice
  - Check box = True/False
  - Check Box (None of the Above) = True/False



# Matching Field & Variable Types

- ▶ Verify, assign and/or change variable types on the Variables tab

The screenshot displays a software interface with a 'Variables' tab. On the left, there are buttons for 'Steps', 'Questions', 'Report', 'Preview', and 'Upload'. The main area shows a table of variables. The variable 'Number of children NU' is highlighted with a red box. Two 'Variable Information' dialog boxes are overlaid on the table, showing the details for this variable.

Used	Name	Type	Re
1	Client other assets TF	True/False	F
1	Client phone TE	Text	F
1	Client savings TF	True/False	F
1	Client SSN TE	Text	F
1	Client zip code TE	Text	F
1	Employer county MC	Multiple Choice	F
1	Employer name TE	Text	F
1	Employment description TE	Text	F
1	Home value NU	Number	F
1	Marital status MC	Multiple Choice	F
1	Name TE	Text	F
1	NOTAR	True/False	F
1	Number of children NU	Number	F
1	State TE	Multiple Choice	F
0	User Avatar	Text	F
1	User Gender	Text	F

**Variable Information Dialog 1:**

- Name: Number of children NU
- Type: Number
- Repeat:  Multiple values
- Notes: (empty)
- Used by: (1)3-Number Fields :Here a

**Variable Information Dialog 2:**

- Name: Number of children NU
- Type: Number
- Repeat: Unknown
- Notes: True/False
- Used by: Date, Multiple Choice, Other





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# Additional Resources

## ▶ **A2J Authoring Guide**

- Chapter 7: Creating Questions – Pg. 80 – Fields Tab
- Chapter 5: Variables Tab – Pgs. 41 – Variable Type Properties
- Chapter 5: Variables Tab – Pgs.44 – Variables Reference Chart (indicates which A2J variable types correspond with which HotDocs variable types)

## ▶ **Online Authoring Guide on A2JAuthor.org**

- Interview Questions – Tutorials – Field Types
- Interview Questions – Modules – Fields Types Training Module (download demo .a2j)
- Variables – Tutorials – Variable Types

## ▶ **Trainings & Presentations on A2JAuthor.org**

- Previously recorded trainings and presentations

