# How to design a form

Let's discuss a possible curriculum for a training course

### I tried out some ideas at the Leeds meetup

These slides come from a session at the meetup on 27<sup>th</sup> February 2019. I threw various slides and ideas at people, because I knew that those meetups attract a knowledgeable and friendly crowd.

When you see a slide with @leedsgovdesign comments at the top, I've added it afterwards.

Sometimes the comments come from attendees, sometimes they capture something I said but didn't have a slide for, sometimes they're my reflections.

Many thanks to Simon Wilson for organising and to everyone who came.

## We need advice on 'how to design a form'

I'm working with the NHS Digital Standards and Redesign team. We recently had results from usability testing a form, built by a team of colleagues from the NHS Digital Front-End library. The form didn't test well, and we realised that it was probably because we offer little advice about how to design a form using the patterns in the library. We know that some teams won't have access to any designers.

These slides contain some ideas about what might go into that curriculum. The curriculum might become a training session, or might become advice online, or the need might be met some other way.

# lan Roddis published about the need for advice while I was typing up these notes

The path of user needs, avoiding beautiful nonsense, and the shelves of wisdom



At work we like a good metaphor, even more so if we can tweet about it in an abstract fashion without revealing too much of the inner workings of our professional lives.

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https://medium.com/@ianroddis/the-path-of-user-needs-avoiding-beautiful-nonsense-and-the-shelves-of-wisdom-fe19a9b7bff3

## This talk is inspired by Ralph Hawkins



#### **Ralph Hawkins**

Service designer

Government Digital Service

@ralph\_hawkins

#### Please use and discuss these slides

This talk was inspired by one that Ralph Hawkins did at the GDS Forms-a-Palooza in January 2019. He described how to design a form and I've used some of his ideas and slides here.

If I've got a slide, or something on it, from somewhere else then there's a credit. If there isn't a credit and there ought to be then please tell me and I'll correct it.

Anything I've created is 'Creative commons' licensed, meaning: Please use it and say where you got it from.

I'm very keen for people to try out these slides and tell me what works and what doesn't.

# How to design a form

- 1. Investigate your forms
- 2. Write the questions
- 3. Get the questions into order
- 4. Put the questions onto pages

# I asked attendees what was missing from the four steps

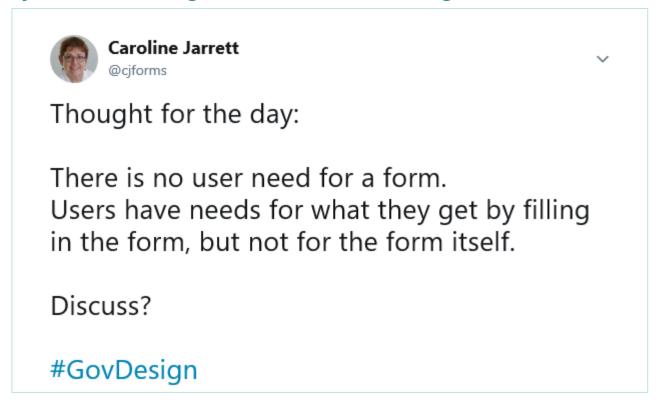
Most of the suggestions were topics that I had included, but weren't obvious from the four steps. I'll mention these later.

#### Attendees pointed out that I had skipped:

- Identify user needs
- What do the users want?
- Why? (what are the objectives?)
- Are we starting from scratch or starting with an existing form?
- What are the outputs? (measures of success?)
- Consider the medium
- Prerequisites, for example what do people need to fill in the form? And how do they get it?
- Who to include when designing a form (team, helpers and stakeholders)

#### Join in the discussion about the need for a form

Because of comments around needs, I started a discussion on Twitter. People joined in with great comments. I've got lots to think about.



# How to design a form

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- Observe people working with the forms
- Observe users filling in the forms

#### 2. Write the questions

- Create a question protocol
- Interview users about the topics on the form

#### 3. Get the questions into order

- Start with one thing per page
- Provide a sense of control
- Do card sorting with users for order of topics

#### 4. Put the questions onto pages

- Use the simplest possible interaction design
- Put the right button in the right place
- Do usability testing with users

## Attendees did not recognise some terms

I asked attendees if there was anything in the expanded list of topics that they did not recognise. As I expected (knowledgeable crowd) nearly everything was reasonably familiar, with these exceptions:

- 'question protocol'
- 'sense of control'

We return to those topics later.

# Activities with users in red with an asterisk

#### 1. Investigate your forms

- Find out how you'll use the answers
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- \* Observe users filling in the forms
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# Investigate your forms

# Start by reading the actual law

#### STATUTORY INSTRUMENTS

1997 No. 3008

#### LANDLORD AND TENANT, ENGLAND AND WALES

The Long Residential Tenancies (Principal Forms) Regulations 1997

### Sometimes the law prescribes the form

#### Prescribed Forms

Form 1(long residential tenancies)Landlord's Notice Terminating Long Residential Tenancy and Proposing Assured Tenancy

Paragraph 4(1) of Schedule 10 to the Local Government and Housing Act 1989

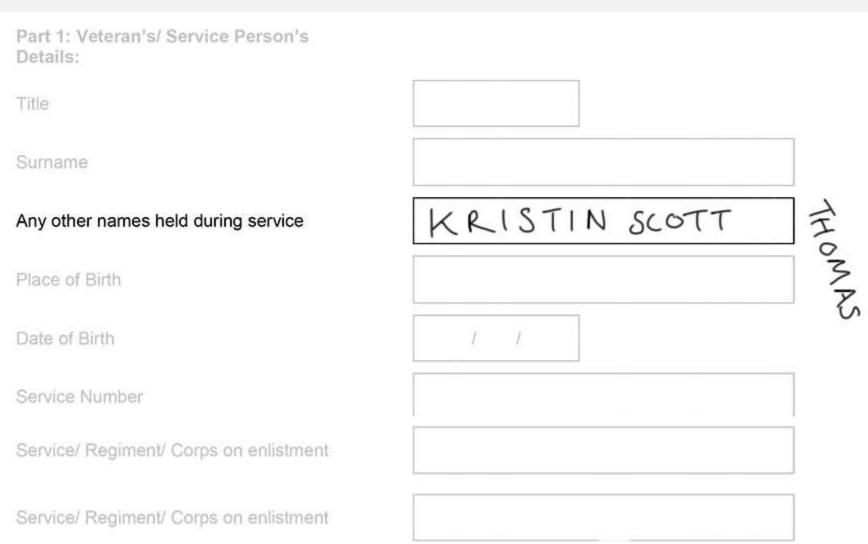
The landlord must cross out any text in square brackets which does not apply.

- This notice will end your existing long residential tenancy and contains a proposal to replace it with an assured periodic tenancy.
- Please read this notice carefully. There are time limits which you must keep to. If you need help or advice about this notice, you should take it immediately to any of the following:
  - a Citizens' Advice Bureau
  - a housing aid centre
  - a law centre
  - a solicitor.
- Please read the notes at the end of the form.

	1. To:	
177		
2.	From:	
	of:	
Ins	ert name[s] and address of landlord[s].	
(se	e note 1)	

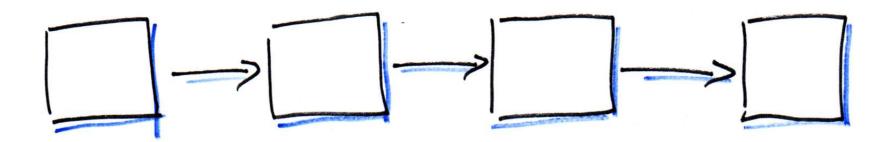
Example from Ralph Hawkins

#### Read filled-in forms to establish the error rates

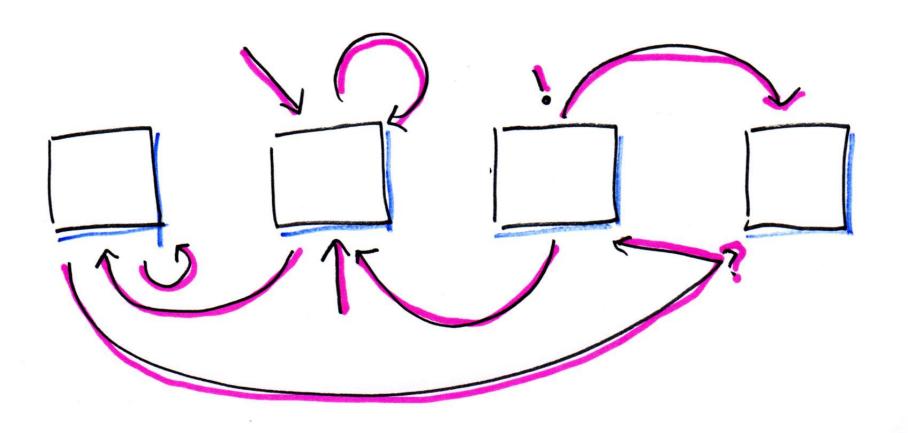


#### **Example from Ralph Hawkins**

# Map the 'assumption' process



# Observe the actual process



# Attendees wanted to know the outcomes of each step

It's not obvious that 'Observe the actual process' is intended to include:

- Find out who is using the forms
- Get to know the processes and technology behind the forms
- Establish metrics such as failure rates, error rates, any other performance issues

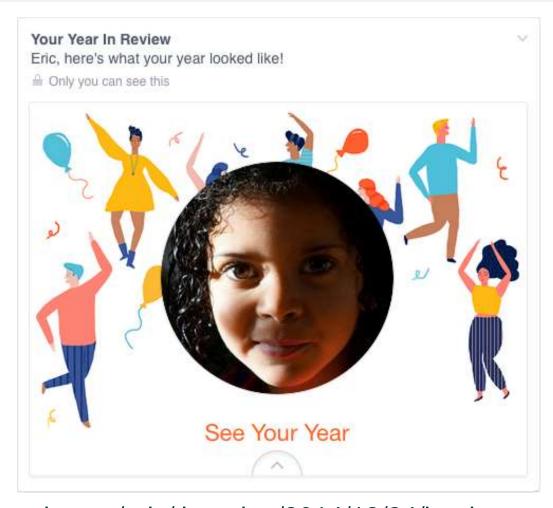
# Observe people dealing with forms



# Observe users filling in the forms



## Find out about people in crisis



https://meyerweb.com/eric/thoughts/2014/12/24/inadvertent-algorithmic-cruelty/

# Missing topic: accessibility and inclusivity

I explicitly mentioned 'find out about people in crisis'.

Attendees pointed out that we also need to be explicit about designing for accessibility and inclusivity, right from the start.

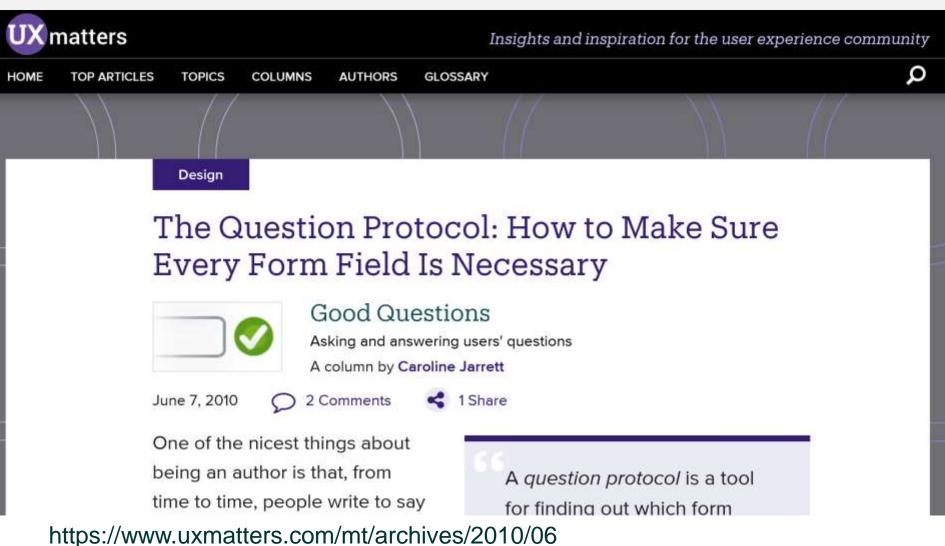
# Write the questions

## GDPR is your friend

"Any processing of personal data should be lawful and fair. It should be transparent to natural persons that personal data concerning them are collected, used, consulted or otherwise processed and to what extent the personal data are or will be processed".

https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679

# Create your question protocol



the-question-protocol-how-to-make-sure-every-form-field-is-necessary.php

26

## The question protocol includes validation rules

It wasn't obvious to attendees that a question protocol includes:

- The validation rules
- The text of error messages
- The reason you are obtaining every answer and how you will obtain that answer (not always by asking a user a question)

## We need a clearer name for 'question protocol'

The term 'question protocol' is jargon that is unfamiliar to attendees.

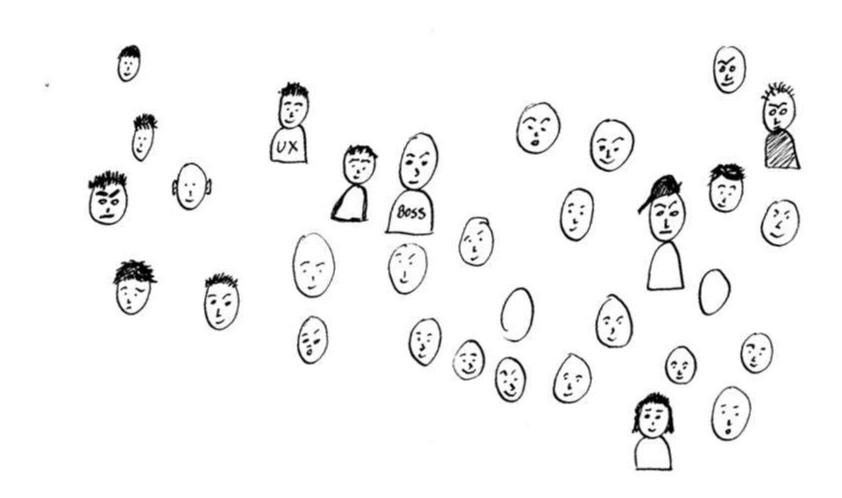
We briefly discussed some alternatives, including Jessica Enders' term 'Question by Question'.

I'd like to find out whether we need to invent jargon here, or whether there is a term for this that is already in use and works better than 'question protocol'.

# Track a sample of forms through your process to find out how you use the answers

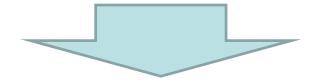


# Interview users about the topics in your form



## Translate the questions into 'user'

'Are you a director of a close company?'



'Are you a director?'

'Are you a director of a close company?'

# Get the questions into order

## Start with one thing per page

#### Page contents:

- Design your forms for the format they'll appear in
- Know why you're asking every question
- Design for the most common scenarios first
- Start with one thing per page
- Structure your form to help users
- Further reading
- Related guides

https://www.gov.uk/service-manual/design/form-structure

# Create a prototype map/wall



Example from Ralph Hawkins

# Get the questions into order

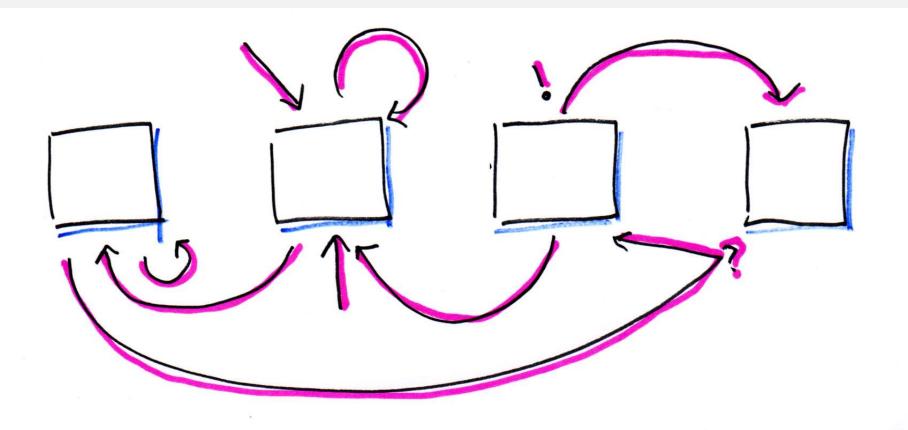
Provide a sense of control

## Progress indicators do not work

- Simple forms don't need them
- 'Step by step' indicators aren't flexible enough
- Difficult forms need summary pages

```
1) About You : 2) Address History : 3) Additional Info : 4) Employment : 5) Confirm
```

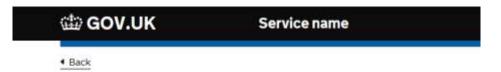
# Real journeys are complex



# A successful summary screen gives control

- You can access each step in any order
- You can see which step(s) are un-started, partially complete, fully done
- Each step "knows" which step is usually next
- Each step "knows" if it can't be done yet
- You can see steps that are about things other than filling in the form:
  - Steps in the organisation's control
  - Steps that are purely about reading content
  - Steps that mean obtaining documents from elsewhere
  - Anything else that you have to do to get to your goal

## 'Check your answers' is an overview



# Check your answers before sending your application

#### Personal details

Name	Sarah Philips	Change
Date of birth	5 January 1978	Change
Contact	72 Guild Street	Change
information	London	-
	SE23 6FH	
Contact details	07700 900457	Change
	sarah.phillips@example.com	

#### Application details

Previous application number	502135326	Change
Licence type	For personal use	Change
Home address	72 Guild Street	Change

# 'Task list' is a (sort of) preview

**⊞** GOV.UK

Service name goes here

#### Service name goes here

#### 1. Check before you start

Check eligibility	COMPLETED
Read declaration	COMPLETED

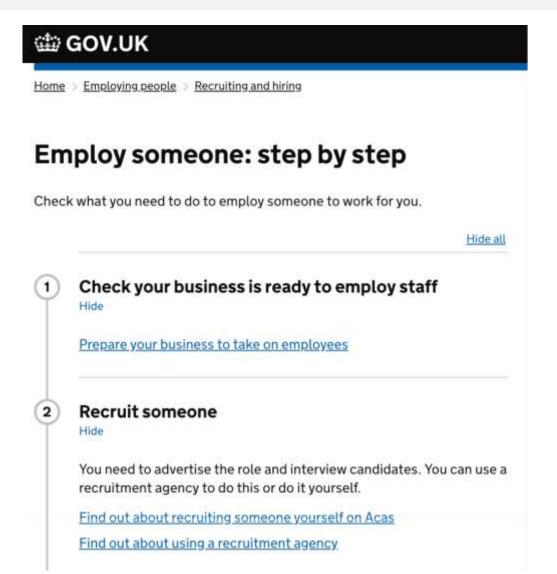
#### 2. Prepare application

Company information	COMPLETED
Your contact details	COMPLETED
<u>List convictions</u>	
Provide financial evidence	
Give medical information	COMPLETED

#### 3. Apply

Submit and pay

# 'Step by step' provides an order

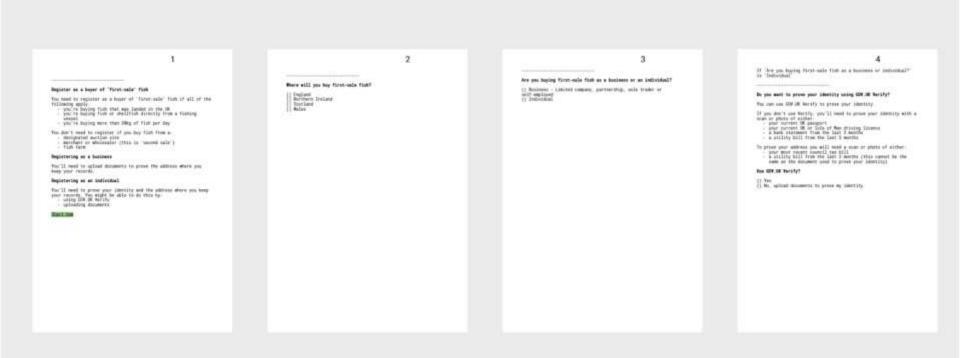


# Do card sorting with users for order of topics

- Eligibility first?
- Easy questions first?
- Filter questions first?
- Signing ceremonies and signatures at the end

# Put the questions onto pages

# Create a prototype (usually a paper/electronic hybrid)



# Use Ralph's conventions for speedy design

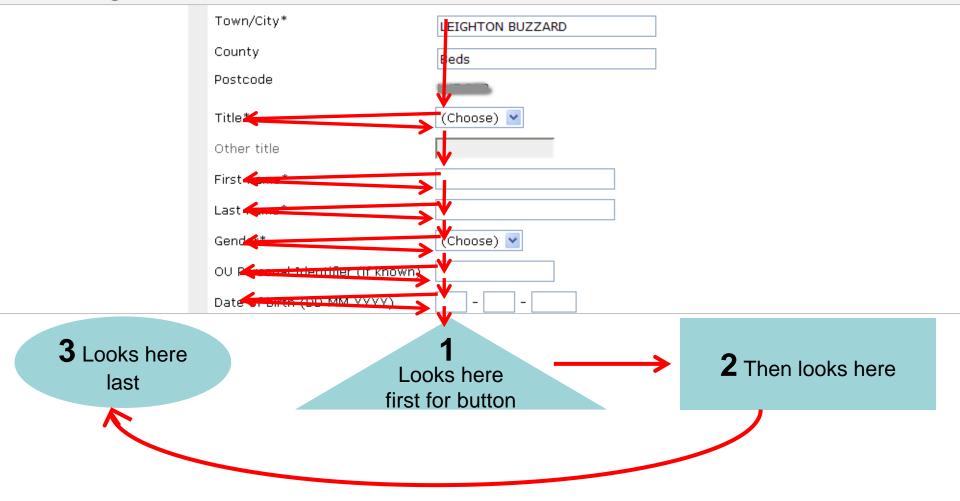
```
( ) radio buttons[ ] check boxes[ ] text input{{ dynamic content }}
```

# An example of design-in-a-document

#### Where do you live?

- () England
- () Scotland
- () Wales
- () Northern Ireland
- () Other

# Best place for a button: aligned with left-hand end of text boxes



47 https://www.slideshare.net/cjforms/buttons-on-forms-and-surveys-a-look-at-some-research-2012

# Label the buttons with what they do



# Usability test your form with users



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# A great form works well across all three layers

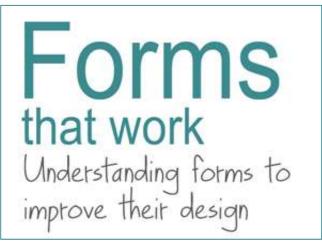
**Appearance** 

Conversation

Relationship

Easy to use Easy to read Easy to understand Easy to answer Easy to get it done Easy to move on

## More slides http://www.slideshare.net/cjforms



Design tips for complex forms Malta 2012

Caroline Jarrett

**Effortmark** 

# Design tips for surveys 2012

Caroline Jarrett

User Interface Engineering / Rosenfeld Media Seminar



### Design tips for complex forms 2011

Caroline Jarrett

J.Boye Conference Denmark



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