# A Recipe for (a) Change

## Preamble

I'd always intended that this blog be a combination of my work life and my personal life with some aspects looking at learning technology and the rest about baking. Finally, FINALLY! I can actually make that a reality and post my first recipe.

As part of the celebrations of Wikipedia's 20th Birthday I decided to get involved in #WikiLovesCakes:

For #Wikipedia20 birthday, we'll be running the #WikiLovesCakes virtual baking competition on our socials.

Bakes judged on: 1) Wikipedia story or connection [] 2) How the panel think they will taste [] 3) Appearance/decoration []

Get your icing ready, entries open 15-18th Jan.

- Wikimedia UK (@wikimediauk) January 7, 2021



By KammaRahbek.svg: Liftarn / Nevit - This file was derived from: KammaRahbek.svg:, Public Domain, https://commons.wikimedia.or g/w/index.php?curid=48138147

A virtual bake-off might seem like a bit of an oddity to some but we've actually managed to keep our University bake-off team going since we left the office all those years ago back in March 2020 so I was pretty excited.

The University of Edinburgh is fairly heavily involved with Wikipedia, having our own Wikimedian In Residence who organises many events including Editathons which led me to my idea; a cake representing #Wikiwomeninred

For those not in the know, WomenInRed is a group that aims to address the content gender gap in Wikipedia articles by creating or updating profiles of prominent women that are chronically under-represented. You can read more and get involved here: https://en.wikipedia.org/wiki/Wikipedia:WikiProject\_Women\_in\_R ed

## The Recipe

Cardamom, Honey and Pistachio Cake with Buttercream and Fondant

Right, lets get down to it. I'll try to breakdown each part of this into manageable chunks and give shortcuts if you don't have time.

#### Ingredients

Cardamom Honey and Pistachio Cake:

- 225g Unsalted Butter, Softened, plus a little extra for greasing the tin
- 225g Caster Sugar
- 4 Large Free-Range Eggs
- 250g self-raising flour (If you are using Plain Flour then add 1tsp Baking Powder for every 150g flour)
- I tsp Baking Powder
- 1 tsp Cardamom Seeds, crushed to a powder in a pestle and mortar (Mostly you will be able to buy Cardamom Pods, just crack these open with a knife and get to the brown/black seeds)
- 100ml milk or 80g Yoghurt
- 40g Pistachio Paste/Powder (you can buy this or make it yourself following this recipe – Link to Pistachio Paste Recipe – external site)
- 30g Honey

Pistachio Crème Patisserie

- 250 g Whole Milk
- 2 Large Egg Yolks
- 50g Caster Sugar
- 20 g Cornflour
- 30 g Pistachio Paste/Powder see above
- 2 tbsp Butter

- 150g Butter
- 280g Icing Sugar

Method

I find it easiest to make the Crème Patisserie first, maybe the day before and then the cake on the day but you can do it all of the same day. Just make sure that both the Cake and the Crème Patisserie are cool before using.

#### For the Cake

- Turn the oven to 180°C/160°C and allow to reach temperature whilst making the mixture
- 2. Cream the Butter and Sugar together until a smooth paste
- 3. Add the Eggs one at a time and mix thoroughly before adding the next.
- 4. In a separate bowl combine the Flour, Baking Powder and Cardamom Seeds together
- 5. Combine the Flour mixture into the Egg mixture
- 6. Add the Milk and Honey with the Pistachio Paste and whisk for about a minute to form a smooth mixture
- Prepare your cake tin by greasing with butter and then pour in your mixture
- 8. Bake for around 35 minutes but be aware this may be different in your oven, remember to cook until a skewer inserted comes out clean (if you are splitting the mixture between two tins then reduce the cooking time)
- 9. Remove from the oven and leave to cool in the tin for 20 minutes before removing and leaving on a wire rack.

#### For the Crème Patisserie

 Pour the Milk into a saucepan on medium heat and warm until just before boiling then remove from heat to allow to cool slightly for about 5 minutes

- 2. Add Egg Yolks and Sugar to a bowl and whisk for 1 minute
- 3. Add Cornflour and whisk for a further 1 minute, the mixture should become silky and pale
- 4. Once the milk has cooled slightly so that it is still warm to the touch but not hot pour a small amount (a ladles worth) into the egg mixture and mix constantly. Continue to add a small amount at a time until all of the milk has been added.
- 5. Pour the mixture back into the pan and warm on a medium heat whilst continuing to mix with a whisk or spatula, you will start to feel the mixture thicken after a few minutes. This should take around 5 minutes at medium heat but keep going if it has not thickened yet. Take off the heat
- Leave the mixture to cool for 2 minutes and then add the Butter and Pistachio Paste and mix vigorously until incorporated.
- 7. Pour your mixture into a container such as a measuring jug and cover with clingfilm so that the clingfilm touches the surface of the Crème Patisserie, this is to prevent a skin forming. Leave to cool form around 20 minutes and then place in the fridge to cool further.

#### For the Butter Cream

 Mix the butter and sugar together until smooth, you can melt the butter slightly beforehand to make mixing easier. You can also add the Icing Sugar bit by bit to make sure you get the right consistency.

#### Prepare your Cake

- Once your Cake and Crème Patisserie have cooled you can begin to assemble your cake.
- 2. If you used to tins you can place one down and pipe or

spoon your Crème Patisserie on top creating a smooth layer before adding the top cake. If you have one large cake then cut in half to make two layers and then add your Crème Patisserie layer in between.

- 3. Place your cake in the fridge for at least 1 hour or up to a day. This will help with applying your crumb coat which will sit between the cake and the fondant. If the fondant sits directly on the bare cake it won't adhere very well so we add Butter Cream in to give a smooth layer to help the fondant stick.
- 4. Apply the Butter Cream evenly and make sure to cover all edges of the cake and smooth down, a pallet knife really helps here but I don't have one so it is manageable without.
- 5. Put the cake back in the fridge to allow to cool again for at least an hour.

#### Prepare and Apply the Fondant (Nearly Done!)

- Take your fondant out of the packet and begin to knead it gently to make it more pliable, be aware that this will slightly stain most surfaces.
- 2. Place the fondant between two sheets of clingfilm or baking parchment to prevent sticking (I prefer this method but you can use icing sugar on a normal surface instead) make sure to roll out enough to cover your cake generously as it will be nearly impossible to remove and roll out again.
- 3. Lightly place the fondant over your rolling pin and use this to transfer to the top of the cake, smooth out the top of the fondant using the palm of your hand, gently tugging the edges to remove creases. Follow this across and down to the edges and remove the excess with the knife.
- A handy video for how to handle fondant can be found here:

Working with fondant guide (including video)

#### Last Finishing touch (Optional)

If you want to truly recreate my attempt then create a stencile of the #WikiWomeninRed logo and use Icing sugar to apply the design. Then you can finally sit down and enjoy!

Voila!:



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# More about Blogs.ed and Plugins

## **Processes and Plugins**

I admit, I may be cheating a little here. As part of HeyPresstoConf20 I really wanted to be able to talk about our Plugins and Processes but couldn't fit into the Tweet limit so I'm putting it all here. This should be helpful if you are planning on building your own WordPress Multisite at your institution, as ever, if you want to discuss this feel free to get in touch.

Firstly let's talk about how we go about selecting Plugins. We start to look when multiple users all ask for the same of similar plugin/function or if we encounter and issue that needs a plugin to be resolved. Thankfully we have an inhouse development team that can be called on if we cannot find something which is a blessing but they support multiple platforms so we do need to have good reason. If we do find a plugin or multiple plugins then we start to investigate whether they actually resolve our issue and if they add any issues or have unexpected behaviour, so far this seems to make basic sense. We have, however, developed a process to audit plugins to ascertain whether they are well supported, well reviewed and also if they contain privacy invasive cookies using the following criteria:

Plugin / theme name:		Comments	Date requested	Date installed
What does it do?				
How much does it cost?				
<ul> <li>Cost of adoption</li> </ul>				
<ul> <li>Cost of training</li> </ul>				
• Cost of usage				
Author background				
Is the documentation good?				
Who will use the add-on?				
<ul><li>admins / authors</li></ul>				
Feedback / reviews				
<ul> <li>Is it used by many, reviews / comments</li> </ul>				
Technical status:				
• Is it up to date, compatible with our version of wordpress?				
<ul><li>Is it well written?</li></ul>				
<ul><li>Does it backup/restore?</li></ul>				
• Is it secure?				
<ul><li>Is data shared outside of wordpress?</li></ul>				
<ul> <li>Type of cookies set</li> </ul>				

Accessibility: • Check any spellcheck functionality on free data entry boxes/forms	
• Check any spellcheck functionality on free data entry boxes/forms	
that is either automatically run by the system or that requires	
users interaction	
• Describe any data validation that is automatically run by the	
system to ensure users enter data in the correct formats. Check	
error messages are in sufficient colour contrast, accessible font,	
clear location, not pop ups.	
• Check whether the template scales correctly using different	
resolutions and whether there are any resolutions that are not	
recommended, tested using ctrl + and Windows Magnifier	
• Check the colours and colour contrasts and font types and styles	
used i.e. are italics and continuous capitals avoided?	
• Check functionality that would allow users to customise their	
views (i.e. font size, colours, contrast ratios). This is by	
altering browser settings.	
• Check whether all content is accessible through a keyboard	
interface and whether it requires specific timings for keystrokes.	
I.e. is it possible to navigate around the template and complete any	
forms etc without ever using a mouse.	
• Check there is an indication or warning of links which will open a	
new tab or window and check that these warnings are accessible	
• Check that the template conveys no information in only colour or	
sound.	
• Check there is no flashing or scrolling text? If so does the text	
flash 3 or more times per second and can it be paused? If there is	
flashing or scrolling text please provide more details.	
• Check that Zoomtext is compatible with the template without plug	
ins	
• Check that JAWS is compatible with the template without plug ins	
• Check that TextHelp Read and Write Gold is compatible with the	
template in terms of spellcheck, hover highlight and highlight and	
read without plug ins.	
• Check that tooltips are clear and enabled by default on the	
template.	
<ul> <li>Check that there are text alternatives for any non-text</li> </ul>	
content.	
• Check that for any audio/visual items are there captions available	
and theses have been checked for accuracy.	
<ul> <li>Check there are no time limits prescribed for the</li> </ul>	
viewing/inputting of content to the template	
• Check what specialist help is linked to on the template and that	
this includes a method of contacting someone for assistance?	
• Check that if the template is accessed via a mobile or tablet	
device the user system does not require to use any requires any	
specific timings/specific keystrokes to complete tasks	
• Check the template works with mobiles/tablets to offer any text to	
speech functionality of the results for those with visual	
impairments?	

You can also read more about this process in this blog post by Callum, one of the original service managers who has since moved to greener pastures (about 5 metres away when we were in the office) – Cookie Audit Process Blog

Lastly, here is a comprehensive list of all of the plugins that we currently use, all of these have been vetted through our process so should provide a good starting point.

## Plugins

Plugin	Developer	Description	Network Activated
Add Existing Users	WPMUDEV	Allows you to bulk add existing users to a site, including the facility to set their role.	N
Add Multiple Users	HappyNuclear	This plugin allows you to add multiple user accounts to your WordPress blog using a range of tools.	Y
Akismet Anti-Spam	Automattic	Used by millions, Akismet is quite possibly the best way in the world to protect your blog from spam. Your site is fully configured and being protected, even while you sleep.	Y
Batch Create	WPMUDEV	Create hundred or thousands of blogs and users automatically by simply uploading a csv text file – subdomain and user creation automation has never been so easy.	Y
BeeHive Pro	WPMUDEV	Basicall Google Analytics, users can use their own ID or apply for access to the University managed one	N
Broken Link Checker	ManageWP	Checks your blog for broken links and missing images and notifies you on the dashboard if any are found.	N
Classic Editor	WordPress Contributers	Enabled at network level to remove block editor default	N
CommentPress Core	Institute for the Future of the Book	CommentPress allows readers to comment in the margins of a text. You can use it to annotate, gloss, workshop, debate and more!	N
Cookies for Comment	Donncha O Caoimh	Sets a cookie that must exist for a comment to be allowed through	Y
Cryout Series Slider	Cryout Creations	accessibility ready free image slider for WordPress.	N
Disable Comments	Samir Shah	Allows administrators to globally disable comments on their site. Comments can be disabled according to post type.	N
EdSolr	UoE	Integrates Apache Solr with a WordPress Multisite Installation.	Y
Email Subscribers & Newsletters	Icegram	Add subscription forms on website, send HTML newsletters, and automatically notify subscribers about new blog posts once they are published.	N
Enlighter — Customizable Syntax Highlighter	Andi Dittrich	Syntax Highlighter	Ν
FeedWordPress	C. Johnson	simple and flexible Atom/RSS syndication for WordPress	N
Flickr Album Gallery	FARAZFRANK	Flickr Album Gallery is on JS API plugin to display all public Flickr albums on your WordPress website.	N
Force Regenerate Thumbnails	Pedro Elsner	Delete and REALLY force the regenerate thumbnail.	N

Google XML Sitemaps	Arne Brachhold	This plugin improves SEO using sitemaps for best indexation by search engines like Google, Bing, Yahoo and others.	Y
Image Attribution Tagger	Red8 Interactive	A plugin that adds image credits to licensed images	Y
MimeTypes Link Icons	Toby Cox, Juliette Reinders Folmer	This will add file type icons next to links automatically.	Y
Multisite Plugin Manager	Aaron Edwards	The essential plugin for every multisite install! Manage plugin access permissions across your entire multisite network.	Y
Multisite Privacy	WPMUDEV	Adds more levels of privacy and allows you to control them across all sites – or allow users to override them.	Ŷ
NS Cloner – Site Copier	Never Settle	Allows us to create sites from a template	Y
NS Cloner Pro	Never Settle	add-ons to the NS Cloner Core	Y
Open Attribute	OpenAttribute		Y
PDF & Print	BestWebSoft	Generate PDF files and print WordPress posts/pages. Customize document header/footer styles and appearance.	Ν
Reading Time WP	Jason Yingling	Add an estimated reading time to your posts.	Ν
Remove Email Verification	WPMUDEV	Removes need to send a verification email when adding users to site or blogs	Y
TinyMCE Comment Field — WPSIWYG	Stefan Helmer	This plugin turns the comment field from a primitive into a WYSIWYG editor, using the internal TinyMCE library bundled with WordPress.	N
Titan Framework	Benjamin Intal, Gambit	Titan Framework allows theme and plugin developers to create a admin pages, options, meta boxes, and theme customizer options with just a few simple lines of code.	N
True Multisite Indexer	Misha Rudrastyh	Indexes all posts across your network and brings them into one spot – a very powerful tool that you use as a base to display posts in different ways or to manage your network.	Y
Ultimate Category Excluder	Marios Alexandrou	Easily exclude categories from your front page, feeds, archives, and search results.	Ν
WordPress Importer	wordpressdotorg	<pre>Import posts, pages, comments, custom fields, categories, tags and more from a WordPress export file.</pre>	Y
WordPress.com Theme Updates	Automattic	Update themes downloaded from WordPress.com seamlessly with the rest of your WordPress updates.	Y
WP Accessibility	Joe Dolson	Helps improve accessibility in your WordPress site, like removing title attributes.	Ν
WP Crontrol	John Blackbourn & contributors	WP Crontrol lets you view and control what's happening in the WP-Cron system.	Ν
WP QuickLaTeX	Pavel Holoborodko	Access to complete LaTeX distribution. Publish formulae & graphics using native LaTeX syntax directly in the text. Inline formulas, displayed equations auto-numbering, labeling and referencing, AMS-LaTeX, TikZ, custom LaTeX preamble. No LaTeX installation required. Easily customizable using UI dialog. Actively developed and maintained. Visit QuickLaTeX homepage for more info.	N

WP to Twitter	Joseph C Dolson	Posts a Tweet when you update your WordPress blog or post a link, using your URL shortener. Rich options to customise and promote your Tweets.	N
WPMUDEV Dashboard	WPMUDEV	Brings the powers of WPMU DEV directly to you. It will revolutionize how you use WordPress. Activate now!	Ν

## Themes

Theme Name
Apostrophe 2
AwesomePress
Baskerville
Bhari
Blask
Cover
Cover2
Cyanotype
Davis
Fluida
Fukasawa
Garfunkel
Hitchcock
Intergalactic
Intergalactic 2
Isola
Lovecraft
Make
Period
Radcliffe
Sorbet

SPL0Tpoint	
Tiny Framework	
Twenty Fifteen	
Twenty Nineteen	
Twenty Seventeen	
Twenty Sixteen	
Twenty Twenty	
Writee	

# Service Inheritance

# How to Inherit a Service

A while back, before quarantine and therefore a lifetime ago, I 'inherited' a service. Anyone familiar with how these things go will also be somewhat familiar with how the conversation went:

"We think you've done quiet well and we'd like you to take over this service"

"Does that mean I can drop my old service"

"No".

Thankfully I have loved taking over this service, by this service I do actually mean \*this\* service. I now manage the Academic Blogging service, blogs.ed.ac.uk which is what you are reading this post on. I have blogged in the past but sporadically at best. Managing the service is completely different, managing any service is difficult but managing a service which is designed to be open and allow people to do what they want (to an extent) comes with it's own interesting challenges, more of that in another post.

Today however I wanted to talk more specifically about inheriting a service. It's something that I hadn't really thought about before but it struck me that this is the first 'living' service that I have taken over. I have a relatively short period of experience of managing learning technology services, roughly 6 years at this point. In that time I have managed two large services but both of these were in their infancy when I got hold. I was able to largely decide what these service should look like, what they would look like and what the policies around them would be. Obviously there is an amount of team work and involvement of other teams in this process but as a service manager the impetus usually came from me.

Taking on a new service that has existed before, however, is something completely different. I often enjoy using bad analogies that I tend to stretch to far, so allow me to do this yet again: Inheriting services is like getting an armchair that belonged to someone else (ish). It's arranged in a different way, it faces the door, it doesn't go back far enough, it feels a bit to firm and there are Revels tucked into the side of the cushion. Who would put Revels down there, why would they choose Revels of all the things available?

## Service Personality

The problem/issue/opportunity is, someone or a group of somebodies have decided how this should work and put it all in place. Now you come in and you're not sure if you always agree. Most of the time you will but you just need to understand the 'why' after seeing the 'what' and 'how'. Most services have a 'vision' of sorts attached, usually within the original Project Brief or the Service Level Description (SLD) that sets out the 'shape' of the service. This works great in isolation but what often happens is that this clearly defined 'shape' then gets released and it tends to need to alter shape to fits its environment in some way. (I DID say I enjoy bad analogies).

## **Opportunities for Change**

I've always very strongly believed that getting a 'fresh pair of eyes' is possibly one of the most useful things to do when you have a great idea or process. Having someone outside of the 'organisation' take a look is often the best way to pick up on things, firstly it forces you to explain why you made a decision and also allows you to be questioned. If you can't convince someone as to why something works that way then you might want to re-evaluate or compromise with the other view point. I love the following quote, which I believe is attributed to Grace Hopper – "The most dangerous phrase in the language is, 'We've always done it this way' "

(If you don't know who Grace Hopper is, please pause and look her up. I will wait)

## Inheritance runs both ways

This is the part that surprised me the most when I realised that this was the first service that was secondhand/preloved/pre-existing/had a life before me. I started this long monologue talking about how I had inherited something but it seems obvious that the service had also imbibed something from it's creators and previous owners. There were certain priorities or choices that were made by previous people upon the service, impressions in the surface that had left their mark. I agree with the vast majority of these but some I want to change, based on my priorities or choices that I think make it fit it's environment in a better way, or a way that appears better to me. Obviously all of this is measured alongside the needs of the current community, I wouldn't make big changes that negatively impacted people using the service but I may make decisions that change the 'flavour' in some ways.

# Making it yours or making you part of it

After you have been looking after the service for a short while you will likely find a list of things that don't really feel right to you. It's likely that these decisions were made some time ago and might not reflect the needs of the user community anymore. I would say it is important to mention here that we aren't criticising the previous owners, just using this change as an opportunity to review and also add you own input to the service. Once you have found these areas then try to seek the justification if possible, there could be a very good reason as to why something works like this and not like \*this\*. If there isn't a good justification or if that doesn't really hold anymore then start building your case for making a change and what that change will be. Next you get to take these changes to the service team, working group or user community. If these don't exist then this is a good chance to make them as having some external input, if only at certain times will greatly improve the service as a whole. Also be check that these changes to are actually sure wanted/needed/will have a positive impact, change for the sake of change is a winding road. Always remember RACI (Responsible, Accountable, Consulted, Informed)

This is the part that I enjoy the most about managing services, there is a human part even if what \*it\* is an application running on virtual machines somewhere (I imagine in a basement, because, it has to be). I get to take all of the work that went before and add my layer on top and alter it ever so slightly, like a funky new flavour in your Rainbow Cake – I REALLY DID say that I like bad analogies.



"Layers from top – Rainbow Birthday Cake" by avlxyz is licensed under CC BY-NC-SA 2.0

Takeaways from service inheritance

If you are a current service owner

- For you managing a service, try to document what decisions were taken and why they were taken, this makes it a lot quicker for someone to get a feel for how the service exists now. Adding the justification really makes a big difference when someone new steps in
- Even if the service isn't being taken over by someone else it can be very helpful to get fresh eyes on a service, or to include more people when making the decisions. Working groups or user involvement are very good for this.
- Try to update original documentation as the service shifts over time, most institutions seem to push for this at intervals but it helps to remember how services can change over time.
- Include retrospective look backs at the service at regular intervals, perhaps each year. Having a look at the changes that were added, how they were received and whether they helped add something useful to the service is a very rewarding process

If you are taking over an existing service

- Getting an overview or introduction to the service is incredibly useful but do bear in mind that it is unlikely that you will be able to understand the entire service after one meeting
- If possible try to take the previous service owner hostage so that you can refer to them if they didn't document things
- Once you have a good understanding of the service

highlight the areas that you have issues with. Areas that you don't understand why something was done in a particular way or why a certain policy exists. Try to find to root cause for these, if they make sense and fit the service you can leave them for now. If that doesn't fit the service or the user's need then earmark those areas for change.

 Add your personal touch, come up with suggestions in these specific areas that you have highlighted and taken them to existing working groups or service team. If they don't exist then consider creating them.

# Service Feedback, how to 'git gud'

Running a service like Noteable comes with its own particular set of problems. Academic colleagues who have used the service in their teaching always say that the service is great, which itself is very good, the problem comes when trying to solidify this into something that you can take to others.

I've realised that it sounds like I'm complaining that people like our service, let me clarify, the problem is getting other people to believe me and get on board as well. Within academia it can be difficult to find time to experiment with something new, one of the best parts of being a Learning Technologist is to make it easier for colleagues to find tools and services that suit their needs and help them to deliver teaching.

This is how I meander my way to talking about feedback, the process of documenting how people found using your service; turning this into things that you can work on and then using it to (identify and then) shout about what your service is

good at.

#### So, you've decided to do some service feedback. Here's what you should know...

I spent a lot of time trying to find some sort of template for what questions to ask but I ran up a blank, I also found a collection of incredibly strange/weird questions which I had to fight the urge to include purely to indulge myself: "If our service were a car, what brand of car would it be?"

Since I couldn't find anything I decided to try and make my own and then share the template out for others to improve on. I'll break this down into two components, questionnaire feedback and User Stories/Use Cases (call them what you want but in the end it's a first-hand account of what your users do with the service and how they found it). Today I'm going to focus on the first.

#### **Questionnaire Feedback:**

Questionnaires are usually a bit of a go to, they don't take as long and you can normally get so numbers which look good on a page at the end of it. They (can be) a quick way of finding things out and the information **can** be useful, if you have the right questions that is...

In thinking about what the right questions are you really need to think about; what information do you want to know and do these questions allow your users to give you that information. For the vast majority of you reading this that will be very obvious but it still bears thinking about. Below, i'll list all of the questions that I eventually created alongside the rationale.

How have you used the Noteable service in your teaching? (Free text answer)

A basic opener to get a bit more information about how your

users have been engaging with your service. This sounds like a fairly bland opener but it does a number of things; gives you context information and also gives you a handy list of "this service can be used for…"

**Do you intend to use the Noteable service again?** (Free text answer)

Very straight to the point, this service was offered in a trial phase so it's important to know how many people thought it was good enough to want to use again. This gives you direct retention numbers and helps you to justify that you are fulfilling a continuing need.

How likely are you to recommend the Noteable service to a colleague who has similar teaching needs? (Free text answer)

For a service that wants to grow this is key. People might like your service but if they **really** like it then they will suggest it to their colleagues. It's a good metric as it's a great thing to brag about, essentially it's not just you that is saying that the service is great but also the users. Users will always be more open to hearing how good a service is from their colleagues so there is also the implication that the service will continue to grow naturally.

How would you rate the ease of use of the Noteable service?
(Scale Question 1Low-5High)

Ease of use means how easily is it for you to use each time you use it in your teaching. You want to know if your users constantly feel like they are straining to use your service. Making the question more open like this means you aren't highlighting what you think are barriers but looking out for anything that could be. A caveat with these questions is that any score under 3 will open a follow up question asking about specifics.

How would you rate the ease of adoption? (Scale Question

1Low-5High)

This is in relation to how much effort it took to introduce your service into their teaching. You obviously want to pay attention to this as it is going to impact the amount of new users and the early attrition rate. Again, this has a follow up if it gets a low mark to get more useful information on what you can improve on. Removing or lowering as many barriers to adoption is going to be the biggest thing to help you grow a service.

What would you do without the Noteable service? (Free text answer)

This might be one that is more suited to our position with the Noteable service. We are offering a centralised service so it's good to know if this is reducing a burden or making it easier for people to use this specific tool – Jupyter notebooks. As a pilot service we need to be able to say there is a justifiable need for providing this service, that without this service users would be inconvenienced.

What is the most important feature that you would like to see? (Free text answer)

Nothing like crowd-sourcing your new features....

To what extent do you agree with the following statement: "Using Noteable helped me to deliver my teaching/training" (Scale Question 1Low-5High)

Directly asking if introducing this tool has any discernible affect on the ability of our colleagues to actually deliver their teaching. It's often very difficult to quantify where something has a pedagogic impact but by asking this directly we are getting the answer from the people who are most likely to know.

To what extent do you agree with the following statement:

"Using Noteable helped my students to interact with the material" (Scale Question 1Low-5High)

Again, this is something that is difficult to quantify but can have a massive impact. If your students can more easily engage with the material it means you can get further into more complex subject, spend more time in theory and less time getting over barriers. This will be followed up with student questionnaires at a later date.

It's important to not lose sight of how valuable this information can be, whilst you will want to shout about good feedback make sure you spend the time fixing what users have reported and working on what they have said they want in the future. Few things can improve your relationship with your users more than "you said, we did".

This questionnaire is currently live, I will share the feedback when it is finally complete. Please let me know if you have any improvements or insights into this, I'm always trying to make this better.

p.s. if you are going to steal these questions, at least replace Noteable with [your service name]. (I have actually seen this before and it is amazing/terrible)

## More about Noteable

I've recently tried to become a little more involved in the wider Jupyter community and I have to say that it's the most amazing community to be part of and work with. We at the University of Edinburgh have already managed to get funding for our nbgrader workshop which has been a great excuse to introduce the University, myself and the Noteable service.

If you want to get involved, or even just be in on the discussions then first head over to Jupyter Discourse, secondly make sure to get in on the newly revived Jupyter Community meetings. The community is always full of interesting nuggets or information and with such a rapidly growing community there is always something new coming up. If you worry about not being able to keep up then I can highly advise the Tracking Jupyter Newsletter by Tony Hirst

Reviving Jupyter Community meetings. See you Tomorrow (Tuesday 26th) 9am PST: https://t.co/4kWO1VsgmE

- Project Jupyter (@ProjectJupyter) March 25, 2019

□ We started recording our monthly JupyterHub/Binder Team meetings. □

If you couldn't make it to our meeting today, check out the
video (with transcripts)!https://t.co/sPAPpXMKj5

- Zach Sailer (@zrsailer) March 21, 2019

Being involved in the community has already started to pay off with the following discovery, originally found on Discourse – https://discourse.jupyter.org/t/in-depth-comparison-of-cloud-b ased-services-that-run-jupyter-notebook/460/14 This is a great intro to what's out there is the Jupyter ecosystem, a breakdown comparison of 6 services that allow you to run/share/preview Jupyter notebooks.....but Oh Dear, Noteable isn't on the list! Time to get our name up there with the big companies like Microsoft and Google. So here is my contribution to how Noteable compares, including some bonus points! Noteable is a service designed for use in educational institutions, currently looking for partners in the UK.

Supported languages:	Python 2.7, Python 3.5, Julia, R, Sage, Matlab, Calysto, Octave, Haskell (also able to install other languages by request!)		
Ability to install packages:	Yes, for the duration of your session. Also we can install packages by request to avoid having to install them yourself (also we have a lot already — https://noteable.edina.ac.uk/code-libraries)		
Interface similarity:	Uses Native Jupyter notebook interface		
Keyboard shortcuts:	Uses all of the same keyboard shortcuts as Jupyter		
Missing features:	None		
Added features:	nbgrader (currently in Beta)built using Docker containers to allow you to switch between environments quickly by launching a new container.		
Ease of working with datasets:	You can upload a dataset to your project from your local computer, and it can be accessed by any notebook.		
Internet access:	Yes		
Ability to work privately:	Yes		
Ability to share publicly:	Not directly but you can use Git to share your repos or send notebooks manually.		
Ability to collaborate:	Not currently		
Ability to upgrade for better performance:	As a service designed for education there is no 'free' version but we do offer trial access to Noteable to institutions that are interested.		
Documentation and technical support:	General documentation for integrating with your LMS via LTI is available. General introduction documentation to using Jupyter is currently being created.		
Conclusion:	Noteable is the only service developed and designed for use in education, primarily further and higher education. We have already developed a working LTI connection to fit in with your LMS and work closely with our users to add features that are of the most benefit.		

If what you see above sounds like something you would be interested in then feel free to get in touch and ask for a trial for your institution.

#### Extra

After following the original thread on Discourse and the

Google Group there have been some extra questions raised:

- Jupyter Authenticator Support: Can it work with my organizations' existing single sign on app? e g. 2FA, TOTP, the new Webauthn, GitHub, GitLab

Noteable can work with your institutions login, with a working LTI we can also directly connect with your LMS meaning that your users can be seamlessly logged in and also directed to specific course (which becomes important with our new Assignments)

- Mobile interface: Can any of the existing iOS and Android front ends connect to the system?

Directly from Noteable we do not offer our own App but I can say that we work on Juno, this is a paid App but does allow you to try some basic notebooks for free. They have also recently announced that they will be donating back a portion of their profits to Jupyter so a win all around.

I'm pleased to announce that from now on I will be donating 10% of all @junoclient sales proceeds to @ProjectJupyter. I highly admire their work, and hope that this (small) contribution will nevertheless prove valuable to Jupyter community!

- Alex Staravoitau (@alexstaravoitau) March 29, 2019

– Backups: How does the system backup work? How frequently, to where, and are there backups tested to make sure that they work?

Noteable auto-saves your work at regular intervals (every few minutes if you are making changes). You can also choose to save a Checkpoint if you think you might need to revert.

# Jupyter Community Workshop Proposal for Digital Humanities

# Title: "Oh! the Humanities: An introduction to the digital humanities with Jupyter notebooks"

#### Summary

The University of Edinburgh (UoE) is looking to host a Jupyter Community Workshop focused on the uses of notebooks for teaching within the field of digital humanities. The core component of this event will be a 2-day workshop to create notebooks with pre-configured text mining dashboards that will allow non-expert users to analysis and data visualizations of large text files without prior programming knowledge. By initially hiding the underlying code used to create these dashboards this will remove the 'fear' barrier whilst still allowing users to explore further by revealing the code at a later date. These notebooks will then be released under an open license for use within the wider Jupyter and digital humanities communities.

#### Additional Events

Alongside this, we will be running introductory workshops into using Jupyter notebooks within teaching, specifically for noncomputational or non-expert audiences. Some of these workshops would focus more on the myriad of uses for notebooks within digital humanities. We are also looking to leverage existing contact with local schools to firstly highlight other uses for programming that are not normally promoted as well as highlighting the use of Jupyter notebooks as a teaching tool.

#### Goals

- To create pre-configured dashboard notebooks to allow non-expert users to leverage text mining capabilities.
- Increase the profile of Jupyter notebooks within the local community for use in teaching and digital humanities
- Gain specific user feedback for recommended or requested Jupyter features that would be of particular interest to a digital humanities audience for future work.

#### Audience

The audience for the workshop events will largely be academic colleagues based within digital humanities as well as nonexpert HE users who are looking to employ computational methods into their teaching. These events will also include pupils and teaching staff from local high schools who have already shown interest and involvement with our current work with Jupyter notebooks in a teaching context.

#### Be Involved

We are currently looking for expressions of interest from Jupyter community members, especially core contributors to Jupyter. This event, if selected, will be held in mid-late May 2019. Give the following brief a once-over, if you would like to add your name to this or be involved then please use the Google Form to express your interest in joining us for an amazing event!

# Jupyter Community Workshop Proposal – nbgrader and Jupyter in Teaching

### Title: nbgrader Hackathon/Sprint

#### Summary

The University of Edinburgh (UoE) is looking to host a Jupyter community event based on the use of Jupyter notebooks within teaching. The core of this will be a gathering of key core contributors and local stakeholders and contributors for a nbgrader focused code sprint. Local Jupyter contributors within UoE have already spent time working on fixes and improvements for nbgrader which they are looking to release back to the community and this workshop would be able to build on this work.

Alongside this, we plan to run introductory open workshops to using Jupyter for teaching targeted at local communities we have already engaged as well as those new to Jupyter. These workshops would be attended by teaching staff from local high schools as well as those from many disciplines across the UoE.

#### Goals

• Improvements and fixes for nbgrader, especially in

relation to its use alongside Jupyterhub when dealing with multiple students

- Increase the profile of Jupyter notebooks within the local FE and HE teaching community
- Increase the profile of nbgrader as an assessment tool for Jupyter notebooks
- Gain specific user feedback for recommended or requested Jupyter features

#### Audience

The audience for the nbgrader code sprint will be core Jupyter community members, local developers, the local Jupyter teaching community and those who teach computation or programming but do not currently method. have automated an assessment The wider introductory workshops will be aimed at attracting members of the local FE and HE teaching community who are looking to update their teaching materials or teaching methods. The University of Edinburgh has been working with our partner EDINA to develop a Jupyterhub system that would allow this audience an easy path to integrate Jupyter into their teaching.

#### Be Involved

We are currently looking for expressions of interest from Jupyter community members, especially core contributors to Jupyter. This event, if selected, will be held in mid-late May 2019. Give the following brief a once-over, if you would like to add your name to this or be involved then please use the Google Form to express your interest in joining us for an amazing event! The Noteable service is into its next big pilot phase this Semester. Over 500 students will be using the service this week across 6 different courses in 6 different School within the University of Edinburgh.

But what is the Noteable service and what is the scope of this pilot? I'm glad you asked (You did ask, I heard you)

Here's a quick summary of what the pilot involves, what we will be hoping to achieve and how we will measure it. Comments are more than welcome. (Nice ones)

### What will be delivered

The Noteable service is a cloud-based application providing access to Jupyter notebooks online. Noteable provides a central space to store and run Jupyter notebooks in a variety of languages.

The purpose of Noteable is to allow students and staff to access Jupyter notebooks at any time without the need for preinstallation which can be cumbersome and difficult for programming novices. Noteable is integrated with the institutional VLE to allow for a central launch point into a pre-set environment without the need for a separate login.

## Duration

The initial pilot will run for the duration of Semester 1 of the 2018-19 Academic Year concluding in December 2018.

Feedback information from staff and students as well as usage data and indications of further demand will be collected and presented before the end of December 2018.

### Users – Students, Courses, Schools

For the pilot of this service, we have worked to ensure pilot users from across the University. The Semester 1 pilot will involve 580 students in 6 courses from 6 different School within the University.

We are also aware that the Noteable service will be used as part of the Digital Skills Programme and we will report of the number of students involved in these sessions at the end of the semester.

## Benefit

There are multiple benefits to be derived from the Noteable service pilot. Firstly, staff who already incorporate Jupyter notebooks into their teaching will benefit the from removing need to have students install Jupyter beforehand which is time-consuming and can cause issues, especially when using multiple additional packages. We will work alongside current users in the creation of Jupyter specific OER materials which will help new users be more easily able to adopt the service.

## Success Criteria

The key success criteria for the Noteable service pilot will be based around 3 components:

1. Demonstrate Need

#### 2. Service Fit

#### 3. Service Cost

#### 1. Demonstrate Need

The first goal of the Noteable pilot will be to determine that there is a need for a centrally supported notebook service for teaching purposes. This can be quantified both with the number of current users as well as secured future users. This will be broken down into two measurable indicators: number of courses using Noteable and number of students within these courses as a total. There will also be an additional measure citing the number of different Schools associated with the pilot to help ensure that the service is widely accepted across the University.

Goal: 6 Courses with up to 500 students in Semester 1

#### 2. Service Fit

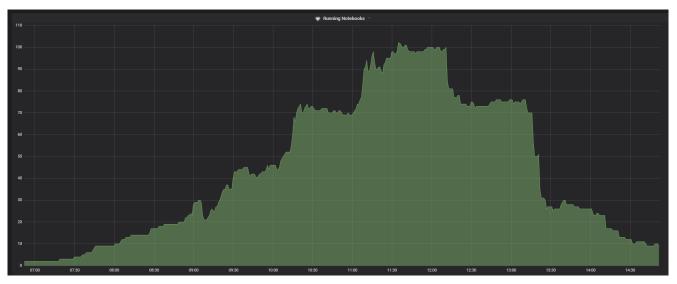
Define whether the Noteable service fits the needs of the user community. This includes comparing the Noteable service with other comparable services. This criterion cannot be easily quantified and will largely be based on the feedback from the current and prospective user community. As part of this evaluation, there will be a suggestion as to whether to use Noteable or use a comparable service.

Goal: Create a comparison document with service recommendation

#### 3. Service Cost

Determine the total cost of running the Noteable service including the cost of staff (both development and support) and operational/infrastructure cost. This can be determined as a yearly cost and also broken down to a per-user cost. This defined cost can then be used as part of the comparison with other comparable services as per criterion 2. Goals: Cost per year and Cost per user.

And to makes all this seem a little more real, here's a graph of the use for Tuesday



First 'big' usage day, peaking at over 100 concurrent Jupyter notebooks. The best bit is; this isn't even our busiest day.

## ProgTeach Play by Play

The first ProgTeach Symposium took place on the 24th of August, this has been something that colleagues and I have been working towards for some time so it was great to finally see this come together. The premise is fairly simple, across the University of Edinburgh lots of people teach computation in some form so let's make time for getting as many of these people in the same room together and discuss what they do (and how they do it).

As my first main event that I've run at the University of Edinburgh, my main concern was that I had put something

together that no one would want to attend....we filled 80% in 24 hours. As you can see below the event was pretty well attended, what you can't see is how diverse the audience was, colleagues from 13 different schools turned up with a smattering of units within those schools.

At the #ProgTeach Symposium this morning pic.twitter.com/y0cjRiCBXX

- marioant (@marioant) August 24, 2018

So to kick us off we had an introduction from Anne-Marie Scott, Deputy Director of Learning, Teaching and Web Services. Anne-Marie has been very keen on the idea of running these types of events to get people talking together about their teaching practice and is also my boss's boss so no pressure.

https://twitter.com/ammienoot/status/1032890247846223874

Up next our first speaker was Dr Areti Mantaki from the Centre for Medical Informatics to talk about her experience of delivering large (huge) scale distance learning introduction to programming courses.

https://twitter.com/ammienoot/status/1032910951983599617

Areti shared some great incites about teaching coding generally and also some of the challenges (and surprises) of teaching entirely online. Something that a lot of attendees agreed with was how important it was to include mistakes in your examples but also spend time walking through the solution.

Areti Manataki reminds us that showing your learners the mistakes you make when coding and how you identify and fix them is part of the programming process and just as important on videos for MOOCs **#ProgTeach**  - Neil P Chue Hong (he/him they/them) (@npch) August 24, 2018

Next up we had Professor Chris Sangwin and Dr Stuart King, both from the School of Mathematics who talked about their introductory programming course. This including speaking about introducing Jupyter notebooks into their teaching as well as using CodeRunner as an assessment tool. Important to note that the students really enjoyed the 'game' of pursuing getting full marks in practice question sets.

**#ProgTeach** Stuart King and **@sangwinc** now talking about and demonstrating using CodeRunner to teach introductory programming

- Edinburgh Carpentries (@edcarp2) August 24, 2018

Then it was my turn (James Slack) to talk about the University's Noteable service currently in a pilot phase. For those not familiar with Noteable this is the University's own JupyterHub environment, giving access to Jupyter notebooks for teaching purposes. Although this is still in a pilot phase the demand has been high and we will be delivering the service to over 500 students this coming semester.

The next speaker was Andrew Kirk from the Digital Skills and Training Team who are using the Noteable service as part of their Digital Skills Programme to deliver beginner Python courses to students from across the University. The courses were overwhelmingly popular, the first session had 90 bookings for only 20 places and will run again in the coming semester.

Striking thing from this image of who signed up for @UoEDigiSkills introductory Python course (based on @EDINADigital Noteable #jupyterhub platform) is just how diverse the audience is in terms of disciplines #ProgTeach pic.twitter.com/whmFaFSlz9 - Neil P Chue Hong (he/him they/them) (@npch) August 24, 2018

After the lunch break, we had a quick talk from Sean McGeever about the carpentries workshops in Edinburgh and the creation of a supportive RSE community. The theme of this talk about building a community to support colleagues from across the University was very closely aligned with the whole theme of the day. Sean also got the funding for cake so bonus points for Sean.

https://twitter.com/ammienoot/status/1032940392482856966

For the penultimate session, we wanted to focus on the on the discussion between colleagues about how they approach certain challenges of teaching computational content. Ironically no-one had the confidence the attempts to answer "How do you build confidence in learners".

Heres a full breakdown of the discussion points – Discussion (Word Document)

And then to wrap up the day we had a quick talk about creating Jupyter based OERs to support new users, there is obviously a lot of material out there for 'Intro to Python' already but what can be really useful is a collection of these in notebook form that we know will work straight away in Noteable and also some ancillary materials about how to use notebooks to make it easier for people to introduce them into their teaching.

And that was that! A very interesting line up of talks and very useful discussion between disciplines which is something I'm always interested in promoting. I'll leave it to Anne-Marie to wrap up the day:

https://twitter.com/ammienoot/status/1032985095454515201

And yes, there will be another one!

# Service Comparisons

A large part of my current project involves looking at other companies or services that offer Jupyter notebooks. The

University has decided that it wants to provide notebooks but we also have to justify creating our own service. If there is something else that does what we need is it worth making our own version of it?

With this in mind, I have been creating a shortlist of services that are comparable and also drawing up a list of criteria to compare.

#### Here is the list of services:

Microsoft Azure Notebooks

Google Colaboratory

CoCalc

Anaconda Enterprise

# And here's a list of the criteria against which they will be compared:

**Pricing** (how much do they charge and how do they charge it, what do you get access to when you pay, is there a free tier etc.)

Technical Specifications (e.g. RAM, CPU cores, Storage)

Extensions Available (e.g. nbgrader, RISE)

**Supported Languages** (There are many varied use cases throughout the university so how do we make sure all are supported, how quickly does the service add requested kernals.)

**Focus/Audience** (e.g. Azure is focused on Machine Learning, Goolge Colab is focused on collaborative programming)

**Business Model** (e.g. Azure is currently in a preview stage and may not be continued)

**Community** (This includes using the community as a measure of

sector involvement and also how quickly the service administrators respond to feature requests or issues)

This comparison will take place over the summer and then I will publish our results. This is all about making sure that we are providing the best service that suits the needs of our users.

If you have anything you would like to add or think we have left any service or criteria out then let me know.