Getting Started with Graduate Research and Generic Skills

MA in Digital Cultures - DH 6013

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Introduction

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Diving in

Finding

It seems sensible to make a research module part of a wider programme; it may be something that we all assume we can do but doing it *well* is another thing entirely. In my undergraduate days I thought having an entire university library at my disposal overwhelming at times - I simply didn't know where to start. The problems I used to have as an undergraduate - of only being able to scrape the surface of a topic - might persist as I go through a postgraduate programme but access to research material is no longer a potentially limiting factor.

Now, however, it's akin to the oft-used analogy of trying to take a drink of water from a fire hydrant. There are some new elements to consider, such as how to evaluate myriad sources and the automated ways of ensuring citations for those sources are correct, but some of the constants remain. Ethical consideration seems even more complicated, especially in digital realms that seem once removed from the personal. And research remains personal - it starts with the researcher, his or her background and beliefs, the assumptions that govern when pen is first put to paper or characters are committed to screen. In that way a module on research skills makes a student look inward as much as outward to "new" skills and methods. Finding truth in research starts in the researcher and they type of work he or she wants to do.

What is Research?

Finding … out how we know about the world

I'm coming at this as somebody who has been outside academia for many years so trepidation as to whether I'd be able to differentiate my inductives from my deductives was assuaged by Walliman's statement that "being a researcher is as much about doing a practical job as being academically competent". I've been doing a practical job for some time, so I can surely pivot to research…can't I?

Somewhat in contrast to the above, despite the Saunders text looking the more business-friendly, I took to Walliman's text more readily, with the exception of the diagrams – again perhaps because of years of not reading academic texts, the instinct for visual learning is strong.

Such prefacing aside, my academic background (sociology, English lit) has always led me to shy away from what I see as the apparently coldly scientific Positivist approaches. In addition, the idea that research is influenced by the philosophy of the researcher is something I'd learned long ago and chosen to forget for the sake of convenience in the course of work; it's no longer something I can choose to ignore but how much is too much? I keep going back to the "doing a practical job" element and the idea of "analysis paralysis".

> "I've been doing a practical job for some, so I can surely pivot to research … can't I?"

I have a fairly clear idea of topics in which I'm interested – I work in the political sphere and have seen how digital innovation has changed approaches and outcomes there over a relatively short time – but having glanced at both texts, I'm unsure if this is a help or hindrance in making research choices. Time will tell I guess.

Bringing this back to the beginning, I might always have thought of myself as the textbook interpretivist – I remember having such an affinity for phenomenology in my undergrad days but I can't remember the last time I used such an approach in real life. Time to ask the question again I guess.

Ethics

Finding … the right foundation

Is it reductive to say ethical concerns – the likes of the those touched on by the O'Donnell piece – are deeply rooted in the researcher's concerns about his or her research would be seen? There seems to be many comments on both the questionable morals of the website source of the data and the means by which the data was put in the public domain but the researchers in the articles discussed by O'Donnell would of course had nothing to do with that; it is only when a researcher uses the data in question that the ethics come into it surely? Is the damage not done to the website subscribers at the time of the leak rather than when the data is used in research? So do the ethical concerns for the researcher just boil down to whether the research would be seen as legitimate?

The Goodyear article touches on an interesting point about fully consented buy-in for media

Photo by Chris Nguyen on Unsplash

What's possible and what's right

consumers. I guess this relates somewhat to the Ashley Madison case too, as you might wonder how many of its users would have decided against signing up if one of the conditions of the EULA had been that anonymised website data would be used for research purposes. It may well be the case that people consenting to their data being used pay more attention or have their choices influenced when more personal data is used – a wearable may well get more personal information than a subscription to a newspaper, for example, but do people think more about those user agreements when downloading the apps?

The ethical considerations of using data when younger people are involved can be sensitive topic but it might be the case that some younger users are more digitally literate and aware than most middle-aged users. Goodyear mentions "fully" informed consent but how can this be gauged accurately; how do we figure out a "vulnerable" group in a digital context? As touched on by the likes of the Sikes article, does this come back to the perceptions of the researcher in the first place?

Ethics in the real world

Some time ago a group of us in work were given a GDPR pep talk and the trainer told us it might be a good idea to use DuckDuckGo instead of Google as a search engine because with Google, "we were the product". After a couple of hours trying to use a search engine that used none of my personal data, I came to the realisation that I'm fine with being Google's product as long as (a) it was an open and informed relationship (how do I know?) and (b), I get what I want out of it. Is this informed consent??!!??

I guess what I'm saying is that I have, no doubt, been pwned as I've been a digital citizen since the days of Ask Jeeves; if a website I can't remember has been breached or data has been sold, I'm not terribly worried, but if it were Google, Nike or my bank, well…..

The Schell talk is relevant as I find it interesting how gamification seems to be increasingly used to encourage people to do things. Granted, the likes of fitness apps getting you to run or walk an extra few hundred metres can be seen as a good thing on the face of it, except, I guess their ultimate aim is to sell you the products that you're running or walking in.

When the Covid app was launched by the HSE, a question was asked about using gamification to get people to log in and log symptoms but the answer was this was not the case. Of course, there's the gamification elements of seeing the case numbers over time, cases broken down by county....

Seeking

Finding … ways to find

I could search for something a ridiculous number of times in a day in the job I do but the search is always a means to an end. Is what I'm doing right or what is the right answer? It's usually in a style guide or a dictionary or thesaurus (tomes or electronic resources that cannot be argued with) but if it's anything outside of that it's Google, always Google.

I'm very much signed into Google and want it to take all my information if it gives me the search results I'm looking for. It strips an initial layer of "nope" when I put in the name of a bill and it returns an Irish bill from the past ten years and not something that went through the US Congress 40 years ago with the same name.

"Hmm, this does not seem to be a healthy relationship, Google"

The method has always been giving the search engine as much useful information as possible on the first pass. If that doesn't work I tend to critically analyse what I've done wrong rather than Google. Hmm, this does not seem to be a healthy relationship, Google. Still if it's work, I have to use the old and probably quaint journalistic adage of getting your answer from two independent sources, rather than something that's been copied and copied again. A fool's errand in the digital era, probably.

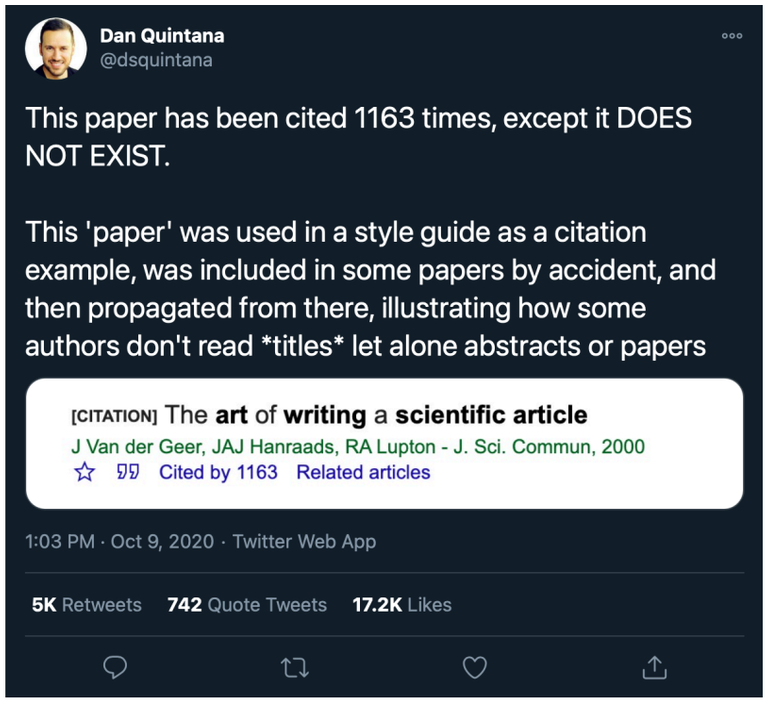
For less serious searching, the critical analysis plug-in in my brain tends to switch off. If I wiki the plot of a film or the year it came out, I tend to give it the benefit of the doubt. That said, I'd never propose to win an argument, even in a pub, with a "It's says it on Wikipedia"…

Having read Head and Biddix, I suppose what I wrote above ties in somewhat – as Barry implies the Internet's perceived convenience seems to trump authority, while at the same time bringing about the "everything now" mindset lamented by Arcade Fire and noted by Biddix as being a "rewarding process … for the type of information located and the speed with which the material could be retrieved". Head, meanwhile, speaks about students' "perceived inability" to find desired materials and also notes how students do not immediately dive into an assignment but think about it in "stew" mode; truth be told, Head's noting of students using procrastination as a "source of motivation" and leveraging "a high level of 'functional anxiety'" is surely familiar to every student who has set foot in a classroom?

If you do it, do it right

Zotero looks to be very useful and ticks one of my favoured boxes of getting organised before doing any real work (perhaps not unrelated to the previous point). Is this a substitute for Endnote? And does it play nicely with OneNote?

When I did my undergraduate degree, before the likes of Google Scholar and when UCD's library was still the scary building that could look like the external shots of Blade Runner on a grey November day, doing the necessary reading took some serious effort. If we were given a list of required reading of ten or 12 texts, it was because you only had a realistic chance of getting one or two at a time



An existential crisis in citation

and if you were nice, you'd photocopy what you wanted and check it back in. If you weren't, well...

If there are multiple sources and there is no problem in getting them, do we do our thinking after reading them or do we jam some narrative around them because it will do?

There's also the curious case of this paper (and others I'm sure) being cited to an amazing level despite not existing; surely the above turned up to 11?

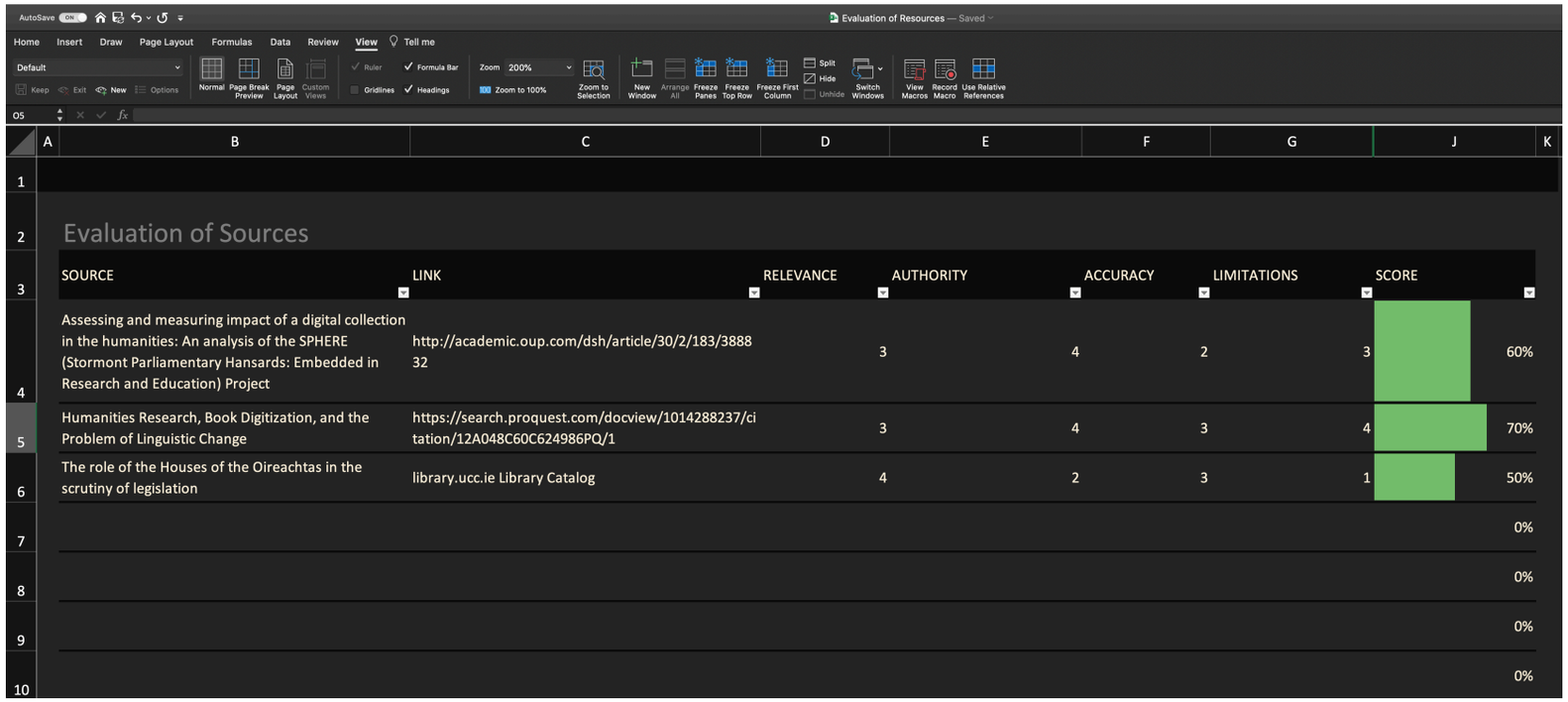
Evaluation of Sources

Finding … what you want

Is simpler better? Who am I to argue with CRAAP, although perhaps currency and relevance could be scored together for the sake of simplicity? Conversely, the purpose element might be too limiting so I've broadened this to "Limitations", which I've seen in some other evaluation tools.

I'm left with Relevance, Authority, Accuracy and Limitations, and if I leave each of these with a five-point score of 1-5, it can leave me with a maximum score of 20, which I can bash into an Excel spreadsheet to give me a quick visual of how happy I am with a source. Filter high to low then…

The problem I'm left with after taking this mathematical approach is the 1-5 score for each of the categories might end up being deeply unscientific. Even taking into account an impact factor might seem fairly objective but it's not, really. Subjective stuff is hard to score. And I'm also conscious of the weighting aspect that Mary has mentioned too.



Getting down to business

But at the end of the day this is about getting my foothold isn't it? I'm not looking to evaluate every resource out there exhaustively, am I?

Then we're back to the use of search and using title, keyword and abstract search. If the Boolean syntax isn't up to scratch or I miss some obvious wildcards or alternatives, I could be missing some vast chunks of research, which is probably far worse than ranking what I have slightly out of order…

Interviews and Surveys

Finding ... out what's what

My topic relates to standards of political discourse on a national level. The questions would be best suited to somebody who is or was directly involved in politics (the sample questions assume this) but could equally be asked of those closely but not directly involved (academics, journalists etc.). Having a few candidates from across the political spectrum should throw in some useful "churn" in perspective I think.

Interview Questions

1. How satisfied are you with the current standard of political discourse in Ireland?

2. How has political debate changed over the past decade?

2.1 For the better?

2.2 For worse?

3. What are the main driving forces in political discourse now?

3.1 How have these changed in the past decade?

3.2 How have they changed in an international context?

3.3 Are there examples of positive change in these driving forces?

3.4 Are there examples of negative change in these driving forces?

4. Are politicians today better or worse than they were a decade ago?

4.1 Why?

5. Is political debate still relevant?

5.1 What about social activism as an alternative?

6. What is the role of the citizen in political discourse today?

6.1 How has this changed, particularly over the course of the past decade?

7. What is the role of new platforms and methods of discourse for politics?

7.1 Is the role positive or negative?

8. How would you change the course of political discourse today?

9. Are you optimistic or pessimistic about how political discourse will evolve in the course of the next decade and afterwards?

9.1 Why?

10. If you had it to do all over again, would you choose politics?

10.1 Would you do it if you were starting your career today?

Online Survey

Politics in Ireland

This is to gauge a user's interest in political discourse, the reasons driving this participation or lack thereof and related issues.

* Required

How interested are you interested in national politics in Ireland? *

	1	2	3	4	5	
Not at all	○	○	○	○	○	Very!

How do you normally hear about important political events or decisions?

- [ ] Online platforms like Twitter, Facebook, WhatsApp
- [ ] Recognised online news media like rte.ie, thejournal.ie, irishtimes.ie
- [ ] Newspapers like the Irish Independent or the Irish Times or magazines
- [ ] Television or radio
- [ ] I don't really read about or listen to that stuff
- [ ] Other: _____

How often do you listen to or read some political debate, either through online platforms like Twitter, on the radio, in newspapers or on TV?

	1	2	3	4	5	
Never	○	○	○	○	○	All the time

How do you rate the standard of politics and politicians in general?

	Poor	Fair	Satisfactory	Very good	Excellent
Overall standard of national politics in Ireland	○	○	○	○	○
Government politicians (Fianna Fáil, Fine Gael, Green Party)	○	○	○	○	○
Opposition politicians (Sinn Féin, Labour, the Social Democrats, etc.	○	○	○	○	○
Local politicians (city and county councillors)	○	○	○	○	○

Dáil Debate

After you watch a minute or so of the above clip, please write some of your initial thoughts in the box below.

Your answer

Are you satisfied with political debates when you hear them or read about them...

	Not at all satisfied	Somewhat satisfied	I don't really care either way	Very satisfied	They're great
In segments from Leinster House?	○	○	○	○	○
On television programmes like Six-One or Prime Time?	○	○	○	○	○
On radio programmes like The Last Word?	○	○	○	○	○
Through online media like thejournal.ie, irishtimes.ie etc.?	○	○	○	○	○
Through online platforms like Facebook and Twitter	○	○	○	○	○
In print (newspapers, magazines)	○	○	○	○	○
In other forums not listed here	○	○	○	○	○

How would you improve the standard of politics in this country?

Your answer

Submit

Page 1 of 1

Available at https://forms.gle/exnjxNBM7z6CYaJR7

Annotation and Mind Mapping

Finding ... another perspective

A really interesting exercise. I deliberately took a really dense technical article that I was interested in and I was hoping that the visual approach would make the really technical stuff a bit more easy to swallow. The most difficult part for me was trying to sort out the categories and they kept moving around a bit, but this was possibly because of the intricacies of the article - simpler is better for me and I'd prefer to break something down into hypothesis, method, findings etc. Highlighting was done with OneNote and a major failing here is that although I can highlight the text, it can't be copied; I'll have to look into LiquidText or the like...

The mind mapping really comes into its own with the cross-pollination effect of taking bits that apply across the hypothesis, method, findings and tying them together. I've done this for the open data aspect and it really provides clarity of thought.

Saying that, sometimes I can't decide if I'm finding these mind maps really good at breaking down information and presenting it visually or if they are adding to my infoglut.

From this:

The debates of the European Parliament as Linked Open Data

Submitted by Astrid van Aggelen on 01/21/2016 - 10:50

Tracking #: 1300-2512

Authors:
Astrid van Aggelen
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Responsible editor:
Natasha Noy

Submission type:
Dataset Description

Abstract:
The European Parliament represents the citizens of the member states of the European Union (EU). The accounts of its meetings and related documents are open data, promoting transparency and accountability, and are used as source data by researchers. However, the official portal of these documents provides limited search facilities. This paper presents LinkedEP, a Linked Open Data translation of the verbatim reports of the plenary meetings of the European Parliament. These data are integrated with a database of political affiliations of the Members of Parliament, and enriched with detected topics from the EU's topic hierarchy and links to three other Linked Open Datasets. The results of this work are available through a SPARQL endpoint as well as a user interface with extensive browse and search facilities. It is now possible to combine in one query the time and topic of the debate, the spoken words - in any available translation - and information about the speaker uttering these, such as affiliations to countries, parties and committees. This paper discusses the design and creation of the vocabulary, data and links, as well as known use of the data.

Full PDF Version:
swj1300.pdf

Previous Version:
The debates of the European Parliament as Linked Open Data

Tags:
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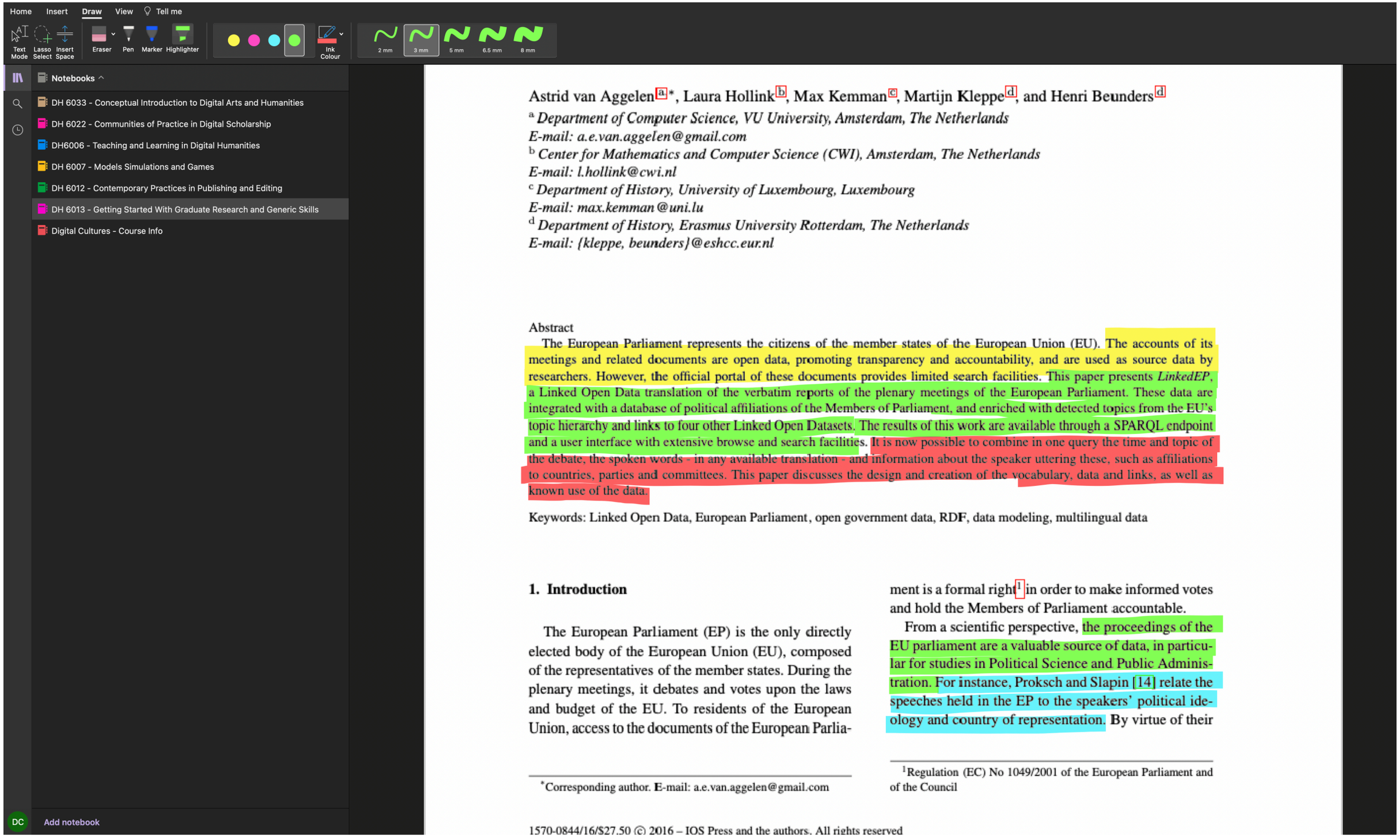
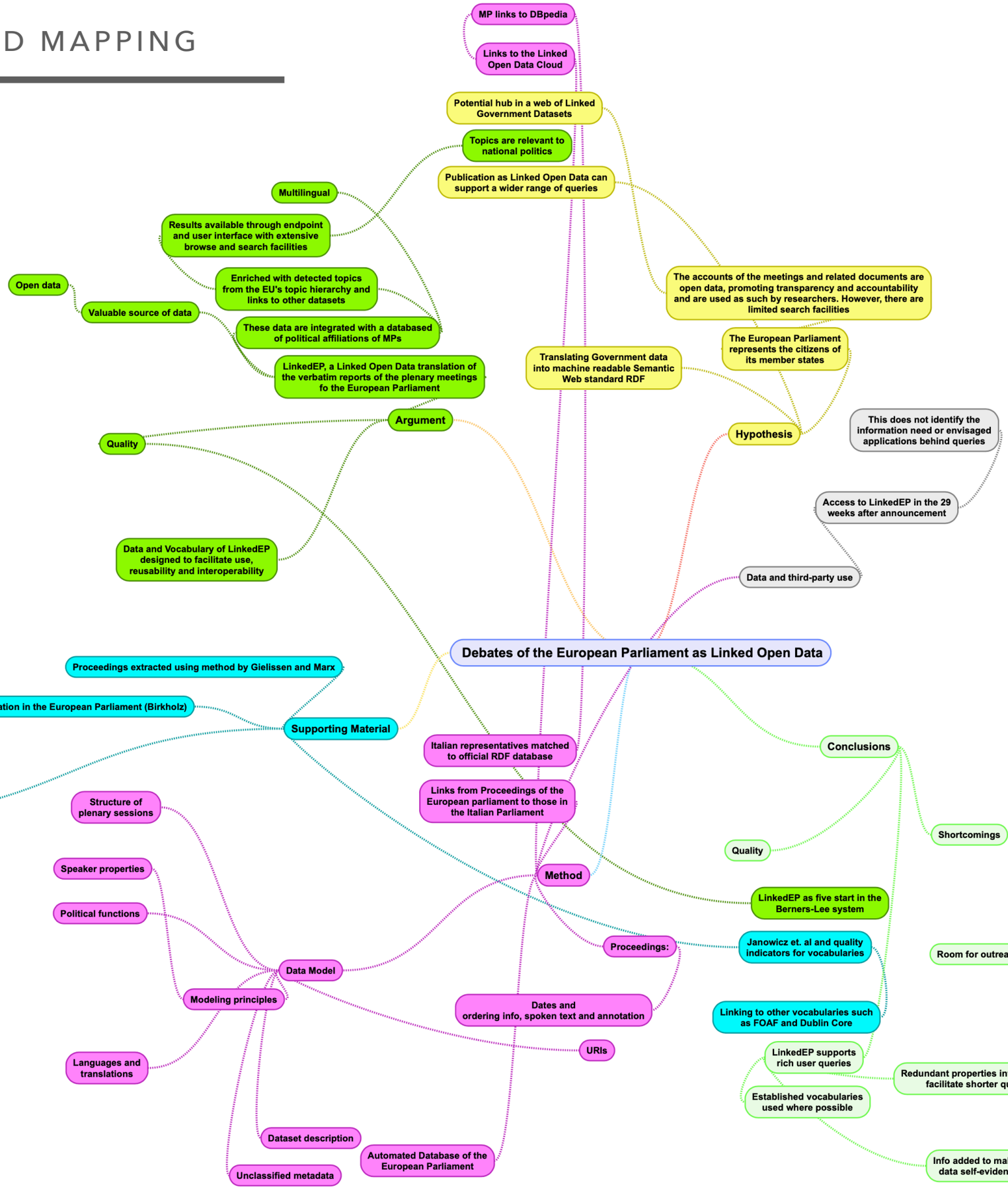
ANNOTATION AND MIND MAPPING



To this …

ANNOTATION AND MIND MAPPING

And finally, to this.



Qualitative Data Analysis

Finding … what's really in there

It's interesting to see the different elements of modules brushing up against each other in some ways. Jockers refers to leveraging data contained in bibliographies "to bring new knowledge to … understanding" but what interests me most, perhaps, about this is how important is the assignment of metadata, specifically comprehensive, concise and readable metadata in this process of unpacking meaning. Órla's session on open data, and specifically the 5 star system of evaluating data immediately came to mind in tackling this week's exercise and using Voyant. If there's no set ontology, and as others have mentioned, if there is fluidity in criteria for inclusion or exclusion, for example, are the goalposts moving every time you feed an article or piece in? Jain et al. (2010) even refer to how linked open data sets themselves are only "loosely connected". Still, look at all the lovely vocabularies!

Voyant representation of the Dáil debate

Perhaps I'm putting the cart before the horse here – I'm sure the Irish-American authors who are the subject of the Jockers piece thought long and hard about the keywords that might one day be included in meta-analysis of their work – but it nevertheless makes the textual analysis more difficult if it's not grounded in some way, surely? Is it like playing a memory game (Links to an external site.) where the cards are randomised after every turn?

Leaving this concern aside, I find it interesting to see how Voyant has dealt with different types of text that others have used, from entire shelves of novels to the humble sports report. Shorter texts may yield more precise data, although I guess this is still dependent on how something like this is used. The old adage of "garbage in, garbage out" applies, no doubt. And I've never used Voyant before, so I'd imagine part of the "garbage in, garbage out" is the human punching in the stop words etc.

Unleashing Voyant

Side-by-side word cloud representation of Dáil (left) and Seanad (right) debate of Bill on Second Stage.

QUALITATIVE DATA ANALYSIS

As I said, it's interesting that others have fed in a variety of texts into Voyant, so I was wondering about feeding in yet another. Using the URL for the debate of the recent Bill in the Dáil that sparked the #repealtheseal hashtag on Twitter and elsewhere, this is what I came up with. On first viewing, and taking out some obvious stop words, it seems a reasonable representation of what was quite a long debate.

	Term	Count	Trend
1	commission	159	
2	people	156	
3	records	154	
4	legislation	134	
5	information	121	
6	time	104	
7	survivors	102	
8	children	93	
9	mother	92	
10	right	87	
11	women	85	
12	years	85	
13	state	82	
14	report	77	
15	baby	74	
16	government	71	
17	homes	67	
18	share	63	
19	said	62	
20	personal	60	
21	access	58	
22	act	57	
23	house	57	
24	issue	55	
25	tusla	55	
26	know	54	
27	way	54	
28	data	49	

	Term	Count	Trend
1	commission	117	
2	records	104	
3	information	88	
4	people	85	
5	legislation	65	
6	women	59	
7	children	56	
8	act	47	
9	homes	47	
10	mother	46	
11	access	45	
12	database	45	
13	share	41	
14	important	39	
15	tusla	38	
16	institutions	37	
17	house	36	
18	baby	35	
19	investigation	35	
20	survivors	35	
21	time	33	
22	future	31	
23	archive	30	
24	given	29	
25	need	29	
26	section	29	
27	committee	28	
28	report	28	

Text incidence of most common words in Dáil (left) and Seanad (right) debate of Bill on Second Stage.

The Dáil debate was approximately 36,000 words and the Seanad debate was approximately 17,000 words, so a little under half the length. Although the Seanad gets a reasonable amount of flak because it's electorate isn't in the slightest bit representative of the country as a whole, my own opinion is that you can get more nuanced debate of certain issues there because only half of them are actively looking to get elected to the other place (and basically electioneering every time they speak). You still get some showboating, and it's definitely increased in the past few years because they can put short videos on Twitter and the like, but there is less of it than in the Dáil.

Planning Digital and Hybrid Activities

Finding … how to do it

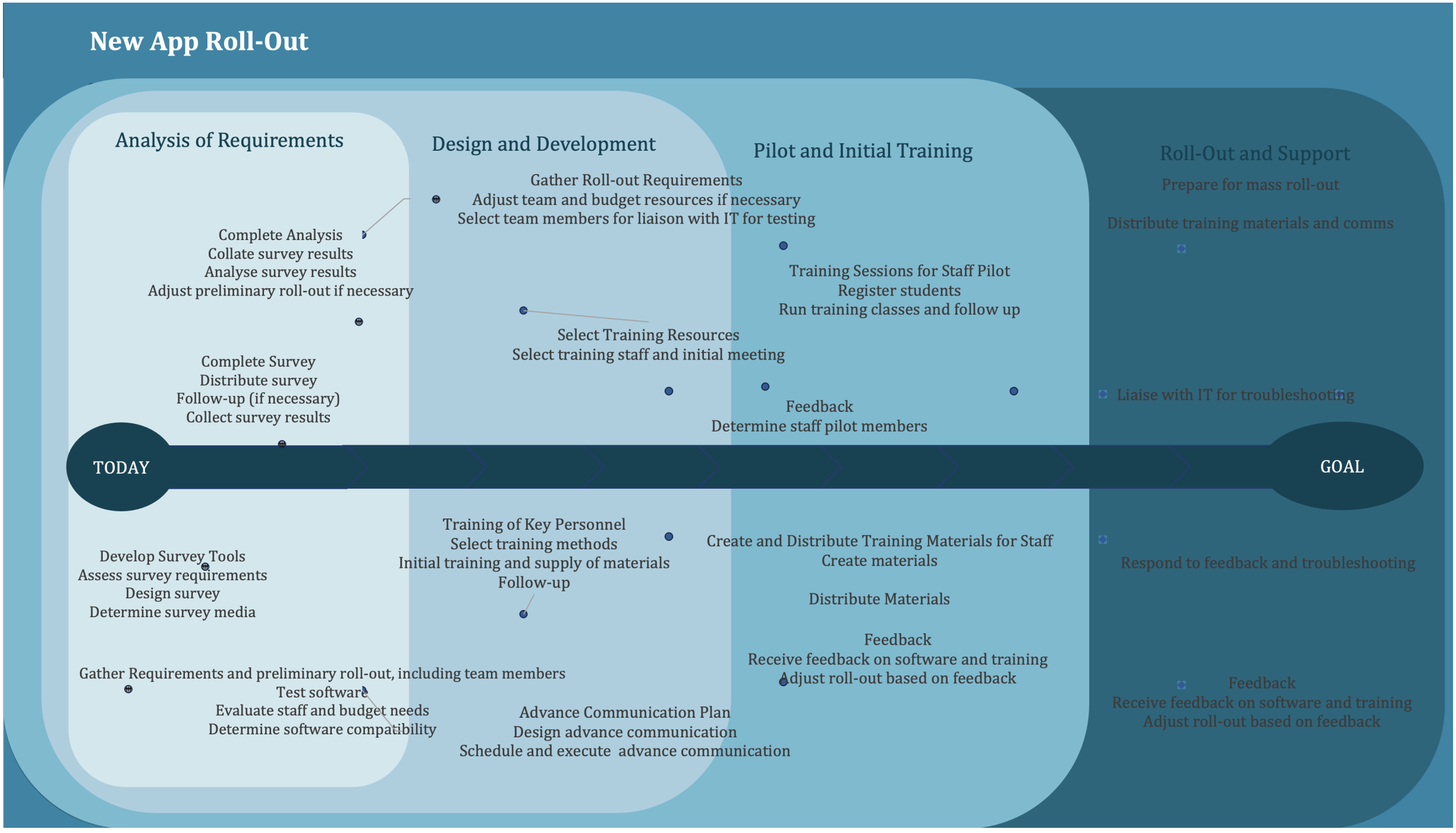
It seems this might be my Kryptonite. It's easy enough to sort things into phases and even gather some milestones. Getting each of the task or activities in the right order, on the other hand, seems to work best when you plan from the end backwards, which is not very useful when we're talking about … project management. Still, it's a useful lesson.

I used Excel charts and wanted to go a bit beyond Gannt but the difficulty is the vast number of tasks that need to be broken down. I see others have used mind mapping for this and it may be the case that this is a better of way of mapping out the tasks that need to be done but it does it get the representation right? I thought a survey of requirements in advance of an app roll-out would be useful but it's not just a case of going "make a survey of requirements" (although I'm sure I could just have run with that and then come unstuck when I had to construct the survey.

I'm really impressed by some of the other project management plans and there's some food for thought for me here. Perhaps I should look *very* closely at the plan for a master's dissertation…

Chart data

Analysis of Requirements		Design and Development			Pilot and Initial Training			Implementation		
Position	Milestone/Activities	No.	Position	Milestone/Activities	No.	Position	Milestone/Activities	No.	Position	Milestone/Activities
-2	Gather Requirements and preliminary roll-out, including team members Test software Evaluate staff and budget needs Determine software compatibility	0	3	Gather Roll-out Requirements Adjust team and budget resources if necessary Select team members for liaison with IT for testing	0	0	Create and Distribute Training Materials for Staff Create materials Distribute Materials	0	0	Prepare for mass roll-out Distribute training materials and comms
-1	Develop Survey Tools Assess survey requirements Design survey Determine survey media	0	-3	Advance Communication Plan Design advance communication Schedule and execute advance communication	0	1	Feedback Determine staff pilot members	0	1	Liaise with IT for troubleshooting
0	Complete Survey Distribute survey Follow-up (if necessary) Collect survey results	2	2	Select Training Resources Select training staff and initial meeting	2	2	Training Sessions for Staff Pilot Register students Run training classes and follow up	2	2	Respond to feedback and troubleshooting
1	Complete Analysis Collate survey results Analyse survey results Adjust preliminary roll-out if necessary	2	-2	Training of Key Personnel Select training methods Initial training and supply of materials Follow-up	2	-1	Feedback Receive feedback on software and training Adjust roll-out based on feedback	2	-1	Review
2	Goal	5	1	Goal	6	1	Goal	6	1	Goal
e milestones, insert new row above this one		To add more milestones, insert new row above this one			To add more milestones, insert new row above this one			To add more milestones, insert new row above this one		



An exercise in hubris?

Finding What We Want

Finding ... again

As somebody who left academia long ago, the idea of being a "proper" researcher terrifies me slightly. In truth, an undergraduate degree scratches the surface of research possibilities and being introduced to the topic by asking myself whether I am a "positivist" or "interpretivist" brought on quasi-panic. Nevertheless, sometimes the nettle just must be grasped.

Grounding myself in the right research philosophy seemed to be a question of being honest with myself. I had always thought I could be objective and that a person's agency was sacred. The positivist quantitative approaches always *seemed* anathema to me - too much Durkheim in my undergraduate days, although his concept of anomie may have renewed significance these days - but from what I have learned on the course, it seems foolish to put all eggs in one basket or another in this way. Not quite horses for courses but perhaps a case of putting the cart before the horse when it comes to research philosophies. There may be room for more *consideration* of different approaches in thinking, even if the researcher must remain grounded as a necessity in one camp.

"Grounding myself in the right research philosophy seemed to be a question of being honest with myself."

Ethical considerations appear to be a constant in research but these are made more difficult with increased access to both research resources, material for study and digital tools that may increase the scope of research. If digital advances have made certain elements of research *easier to achieve*, the flip side is that ethical concerns can become much more complicated, as the discussion on the Ashley Madison case demonstrates.

With research sources I envisage having the exact opposite problem I had as an undergraduate some years ago, when precious library resources were often not enough to satisfy the sheer number of undergraduates in my degree programme. I often had to rely on photocopies from the student union to merely get access to the required readings. The evaluation of materials is a new skill for me and I still have the nagging feeling when researching that I'm missing something, and that's before dealing with the glut of reference material that's building in Zotero and the challenges of ensuring nothing gets lost in the material *I have found*.

Research tools outside surveys and interview are, again, somewhat new to me and the challenge will be how to use them correctly and, more important, in an appropriate way. The likes of Voyant and NodeXL could prove to be priceless

tools but only if used in the correct scenario, no matter how tempting it might seem at times to use such “magical” tools in the hope they might help prove a theory.

The use of, number and type of digital tools again may reference the researcher’s philosophical approach but I suppose this is nothing new; interviews and surveys have always run the risk of asking leading questions that could in turn skew data on research questions, for example. I still feel more comfortable taking a qualitative approach in data seeking but some of my research questions may necessitate a quantitative approach with analysis. For example, how can a researcher investigate social media interaction unless a decision is taken to investigate a section and assume it is a reflection of the whole or, in contrast, take a more quantitative approach that may lose some or all of the subtleties that are captured in qualitative approaches?

There is also the question of how to structure the research process and it seems project management is something I must work on. I have taken it for granted that research results, whether in an assignment essay, master’s dissertation or doctoral thesis could be undertaken with the same type of planning, albeit on different scales. A mind mapping exercise may suffice for relaying the results of shorter pieces of research but it has become clear that more substantial research requires time and resources to be placed in planning and project management, which, again, is new to me. It is the skill I need to work on most.

Finding the right path

In the introduction I recalled how when I undertook research as a beginner, I could be so overwhelmed I did not know where to start. That’s still the case, to an extent, but I have become more aware of the *process* that should be undertaken with research at this level. There is a structure to be followed, and it in turn helps light the path to finding verifiable data and structuring conclusions around data I know has been collected in the best possible way. Individual elements may seem chaotic - to me at least- at times (the coding of interview data, for example, is something that I learned rather than something that comes naturally) but there is reassurance in knowing that they form the building blocks that eventually merge in a cogent fashion. It is about finding the right way to do it.