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MAT 259, Winter 2020

Mediating the Oceans

One of the core lessons in media studies is Marshall McLuhan's oft-quoted claim that "the medium is the message." That is to say, the forms of media and processes of mediation that we engage with are as important as the content that we look at. For this assignment, I am interested in exploring the types of media that are most frequently associated with the topic of our oceans. On a conceptual level, I am investigating how public imaginaries of the ocean are structured through media. On a more practical level, I hope to answer the following by engaging with the Seattle Public Library dataset:

1. What forms of media (item types) do people check out from the Seattle Public Library most in relation to the topic of the oceans/sea?
2. How does that blend of media types change over time?
3. Relatedly, how does engagement with the most popular media texts related to oceans change over a decade (2009-2019)?

Query 1: retrieve the top 100 checkouts for the subject "ocean"

```
SELECT
    deweyClass, title, itemtype, count(cout) AS Checkouts
FROM spl_2016.outraw, spl_2016.subject
WHERE
    spl_2016.outraw.bibnumber = spl_2016.subject.bibnumber AND
    spl_2016.subject.subject = 'ocean'
GROUP BY itemtype, title, deweyClass
ORDER BY Checkouts DESC
limit 100
```

top100oceans

deweyClass	title	itemtype	Checkouts
	Clam I am	jcbk	2674
551.46	Oceans	acdvd	1577
	magic school bus on the ocean floor	jccd	1124
551.46	Oceans	jcbk	1111
551	Earth the biography	acdvd	1004
591.92	magic school bus on the ocean floor	jcbk	978
591.77	blue planet seas of life ocean world frozen seas	acdvd	923
578.77	Blue planet II take a deep breath	acdvd	786
551.46	Ocean	jcbk	653
333.714	Strange days on planet Earth 2	acdvd	610
551.46	Planet ocean	acdvd	595

This first query tells me a couple of important things. Of the top 10 most popular media texts, half are DVDs, and 4/10 are children's books, and 1 is a children's CD, which is ostensibly an audiobook version of *Magic School Bus on the Ocean Floor*. It seems the most popular books about the ocean are intended for an audience of children, while DVDs seem to have a broader audience range.

If we look at deweyclass, the majority of these texts are classed in 551.46, or "Oceans," which is nested within "Surface Features of the Earth," "Physical and Dynamic Geology," and "Earth sciences & Geology." 591, meanwhile, refers to "Specific topics in the natural history of animals." 578 similarly gets to Natural history of organisms. I see it as significant that these are scientific classifications, as opposed to anything related to ocean fiction or social engagements with the ocean. The one exception is the 333 classification for "Strange days on planet Earth 2," which puts it in the zone of "Environmental Impact Assessment," which is itself classed within "economics of land and energy."

To get a clearer picture of what's going on, I want to add in data about checkout dates to see if there's any significant changes in this engagement over time.

Query 2: Ocean media over time

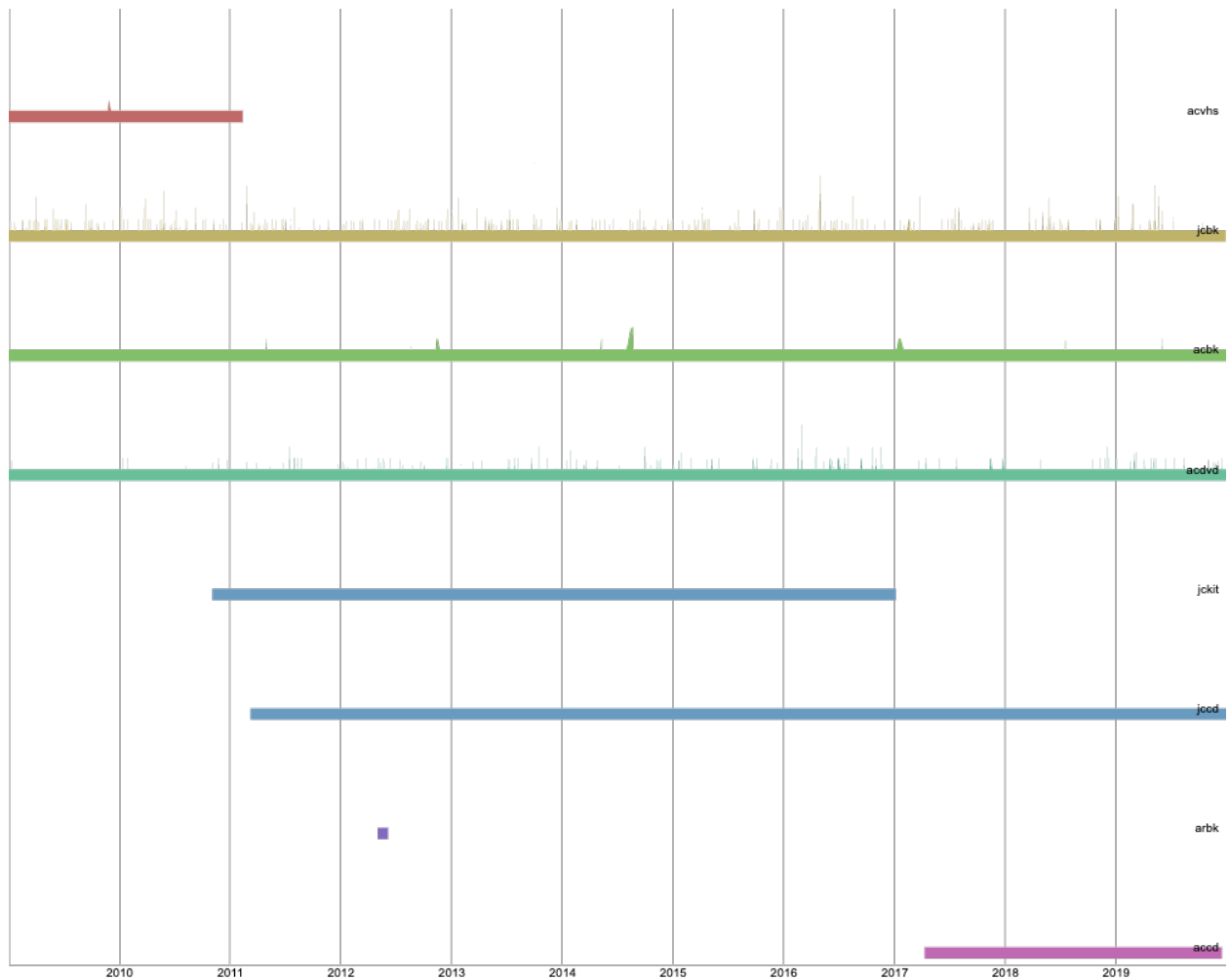
```
SELECT distinct
    cout, deweyclass, title, itemtype
FROM spl_2016.outraw, spl_2016.subject
WHERE
    spl_2016.outraw.bibnumber = spl_2016.subject.bibnumber AND
    spl_2016.subject.subject = 'ocean' AND
    YEAR(cout)>='2009'AND
    YEAR(cout)<='2019'
GROUP BY cout, itemtype, deweyclass, title
ORDER BY cout DESC
```

oceandecade

cout	deweyclass	title	itemtype
2019-12-31 16:04:00		magic school bus on the ocean floor	jccd
2019-12-31 14:51:00	639.2	outlaw ocean journeys across the last untamed frontier	acbk
2019-12-31 14:44:00	551.46	blue planet seas of life	acdvd
2019-12-31 12:14:00	578.77	Blue planet II take a deep breath	acdvd
2019-12-31 11:08:00	639.2	outlaw ocean journeys across the last untamed frontier	acbk
2019-12-31 11:05:00	551.46	Oceans	acdvd
2019-12-30 14:12:00	591.77	Oceans	jcbk
2019-12-30 13:43:00	578.77	Blue planet II take a deep breath	acdvd
2019-12-30 13:40:00	578.77	Blue planet II take a deep breath	acdvd
2019-12-30 12:32:00	639.2	outlaw ocean journeys across the last untamed frontier	acbk
2019-12-30 12:01:00	591.77	Ocean	jcbk
2019-12-30 11:03:00	551.46	blue planet seas of life	acdvd

This is a huge database—it's hard to interpret without visualizing the database. So I made a crude attempt to use data visualization at this point. I use Raw, which is an easy online tool I've used before, putting the date on the x-axis and creating itemtype groups on the Y axis. Just for kicks, I make the color reflect different titles. Blue is assigned for “magic school bus on the ocean floor,” which is one of the titles I ultimately want to track.

Ocean Decade on Raw



Here I can make several important observations. VHS fell off around 2011, and cds picked up after 2017. The books have remained fairly constant throughout, although there is obviously higher engagement with the children's books (you can see the spikes reflecting multiple

checkouts in a day). There is a purple blip for arbk, which is a young adult reference book titled “depths of the sea an account of the general results of the dredging cruises of H M SS Porcupine and Lightning during the summers of 1868 1869 and 1870 under the scientific direction of Dr Carpenter F R S J Gwyn Jeffreys F R S a.”

Looking at this makes me curious about how the data looks for the most popular books that I determined in the first query, so I decide to look at those individually for the date range.

Query 3: Look at the most popular ocean media texts over time

I included the top 4 texts from query 1, excluding “Oceans” as it is a very general title that would return too many results unrelated to the book.

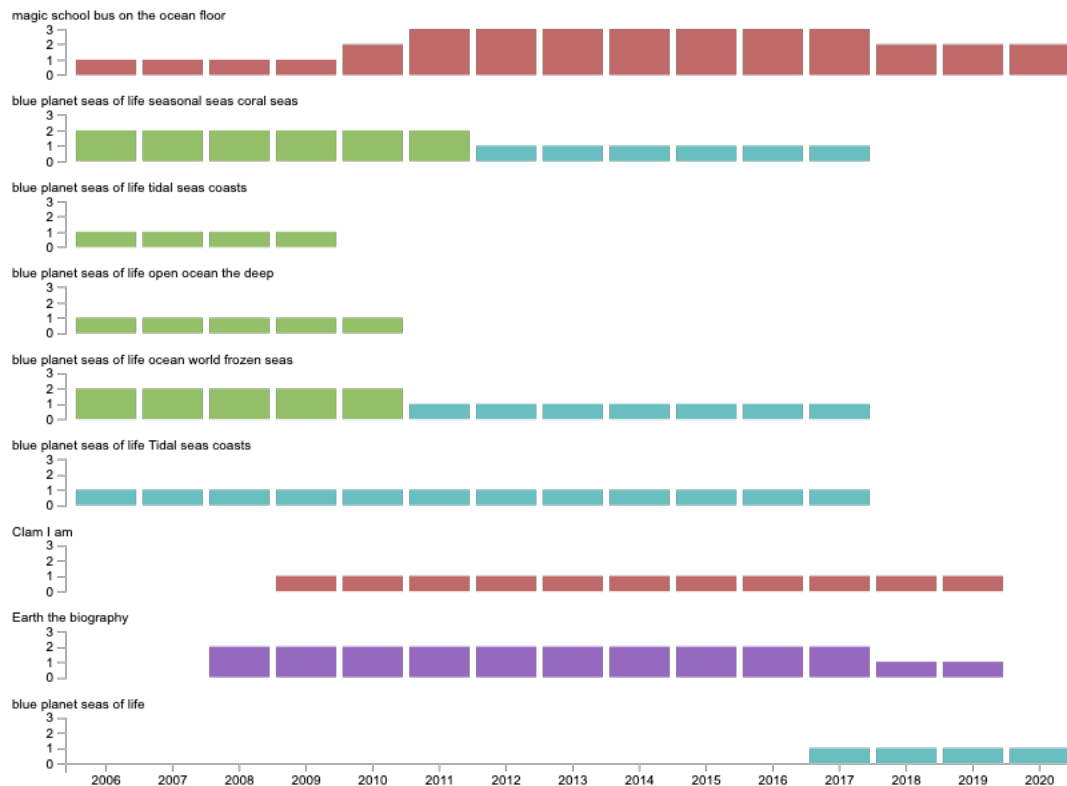
```
SELECT
    bibNumber, itemtype, title, YEAR (cout) AS year
FROM spl_2016.outraw
WHERE
    YEAR(cout)>='2009'AND
    YEAR(cout)<='2019' AND
    title like '%Clam I am%' OR
    title like '%magic school bus on the ocean floor%' OR
    title like '%Earth the Biography%' OR
    title like '%blue planet%'
GROUP BY bibnumber, itemtype, title, year
ORDER BY year DESC
```

bibNumber	title	year
3365573	Blue planet I	2020
3165281	One day on c	2020
3380316	One day on c	2020
3332089	blue planet s	2020
3490524	Blue planet I	2020
1272561	magic schoo	2020
2683791	magic schoo	2020
3380315	One day on c	2020
2702578	Earth the blu	2019
2902040	B is for blue	2019
2844996	story of the k	2019
3230324	Water explor	2019
2490158	Earth the bic	2019
2882160	Everything ui	2019
3338769	Blue planet I	2019
3122725	Blue planet €	2019
3365573	Blue planet I	2019
3490524	Blue planet I	2019
2683791	magic schoo	2019
3332089	blue planet s	2019

Looking at the dataset itself, it’s easy to see the flaw right away: “blue planet” is a very common title and refers to many items other than the DVD that appeared in my initial top 10. I repeated

the query with a more refined title—“blue planet seas of life.” This still isn’t perfect (next time I should try bibnumber), but I was still able to make an interesting visualization:

Checkouts by Year for top Ocean-related Titles in SPL



Legend:

Search...	
acbk	#9469bf
acdvd	#69bfbf
acvhs	#94bf69
jcbk	#bf6969

I see that VHS once again ends around 2010-2011, but now it’s easier to see how the popularity of the individual texts waxes and wanes. For the most part, there’s a lot of consistency for titles like Clam I Am or Blue Planet, but you can see that Magic School Bus peaks around 2011-2016, and that in general, all the texts have gone down in popularity since 2017. What was it about 2018 that suddenly made people avoid checking out these books and DVDs? I have a hunch—in 2018, Blue Planet II was released by BBC and subsequently acquired by Netflix in Dec 2018. Relatedly, Planet Earth II aired on Netflix Dec 2017. Perhaps it’s the Netflix effect?