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MAT 259
Project 1: Culture Analytics
January 14, 2016

Technology Through the Years

Concept:

Every year new technological advancements and gadgets are introduced for the public to acquire for personal, or professional use. The technology can fall under the categories of smart phones, laptops, tablets, digital assistants (Amazon Echo, Siri, Cortana), video game consoles, etc. These gadgets are deemed useful or unnecessary by the individual. Searching through the past ten years I would like to so see how the popularity of books about technology has changed within the people of Seattle. Has it increased or decreased despite the fact of our reliance towards these machines? Have the minds of the public of Seattle geared toward technology and computer science? These are the questions and concepts my data will examine.

Query and Explanation:

SELECT
- *Here I started off with selecting year and it will be displayed as year on the table*

YEAR(checkOut) AS Year,
- *With these conditions I made sure to choose the deweyClass 600, 000, 005, and 776 and create columns for my table. They are names Technology, Computer Science, Computer Programming, and Computer Art respectively. The conditions also sum the total check outs of the book that pertain to the Dewey class.*

SUM(CASE
   WHEN deweyClass = 600 THEN 1
   ELSE 0
END) AS 'Technology',
SUM(CASE
   WHEN deweyClass = 000 THEN 1
   ELSE 0
END) AS 'Computer Science',
SUM(CASE
   WHEN deweyClass = 005 THEN 1
   ELSE 0
END) AS 'Computer Programming',
SUM(CASE
   WHEN deweyClass = 776 THEN 1
   ELSE 0

END) AS 'Computer Art'

FROM
- *I got all this data from the checkOuts data in spl3*
spl3._rawXmlDataCheckOuts
WHERE
- *Here I chose the years that would be displayed. They were then grouped and ordered by year*
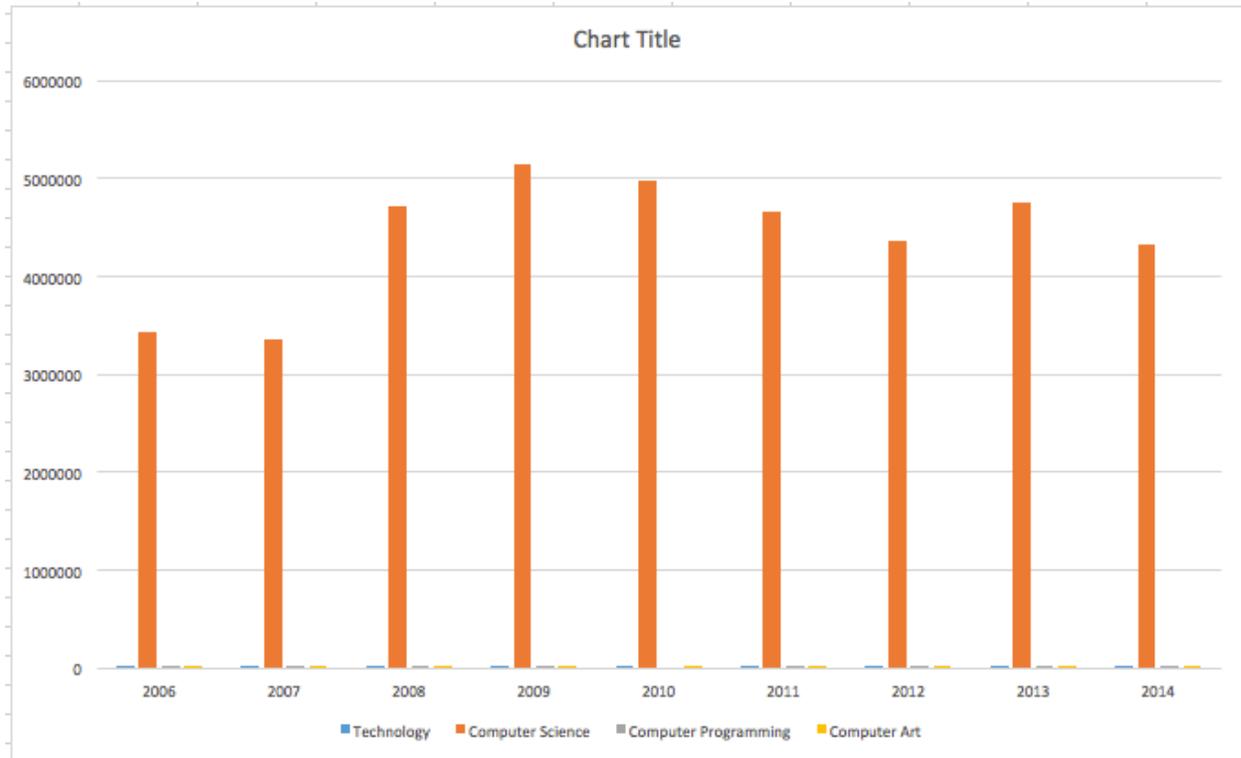YEAR(checkOut) >= '2006'
  AND YEAR(checkOut) < '2015'
GROUP BY YEAR(checkOut)
ORDER BY YEAR(checkOut)

Results:

Year	Technology	Computer Science	Computer Programming	Computer Art
2006	503	3424214	15	37
2007	467	3362577	11	24
2008	590	4713593	5	66
2009	615	5141529	4	104
2010	534	4979017	0	113
2011	477	4655379	12	105
2012	532	4361197	38	111
2013	526	4750906	39	222
2014	545	4322705	21	201

Chart Title

(Legend: Technology, Computer Science, Computer Programming, Computer Art)

Processing Time:

The processing time for the given results are as followed:

     147.550 Seconds.

Analysis:

Throughout the years, the Dewey Class for Computer Science has been very popular and seems that it will continue the same trend. The same can be said about Technology. However, for computer programming and computer art, its popularity has been increasing throughout the years and could indicate the new found fascination of the public towards technology and how it works. For a while computer programming was dropping and after 2010 it began rising again indicating that the people of Seattle are interested in programming and creating their own works perhaps or train to become employable as programming has become popular due to the demand in new devices.