Assignment 1

Szymon Pawlica

R00187226

Abstract

In this short essay we are going to have a look at an online PC video game price comparer and how it served this information to its users. The positives and the negatives of their approach and how it could be improved.

Introduction

The site gg.deals provides users with a price comparison of any PC game on the market with official store prices and keyshop prices. It provides a search engine through which users can find games by name, genre, tag or feature which can be further sorted by the usual methods such as price descending/ascending or user reviews. Once looking at a specific games price comparison page more information such as the price in all supported stores and keyshops is presented to the user, DLC and pack prices are also displayed along with an 'about' section for the game. At the bottom of each games page there is a price history interactive line graph which compares the official stores and keyshops prices since the games release.

With prices of video games especially AAA titles having a standard market price of €60 and the average price of a new game being ~€40 [1] as development is becoming more time consuming and costly, there is no surprise that many people opt for buying games only on sales or through keyshops.

Analysis

With the price comparisons shown on gg.deals being represented using a line graph there may be concerns regarding the simplicity of this graph and how line graphs can be interpreted [2], however taking into account the content that is being compared makes a line graph ideal for such data as it allows to see a clear difference between the prices over time a long period of time [3]. The advantage of using line graphs for such data representation is that they are easy to read and understand. Here is an example of one of these graphs, we can see that it displays the lowest price found in official stores (green) and keyshops (orange). We can also see that there are togglable options at the top of the graph which allow the user to zoom to see data from the last month, 3 months, 1 year etc., and to view either line specifically by disabling the other.

Price History of The Witcher 3: Wild Hunt
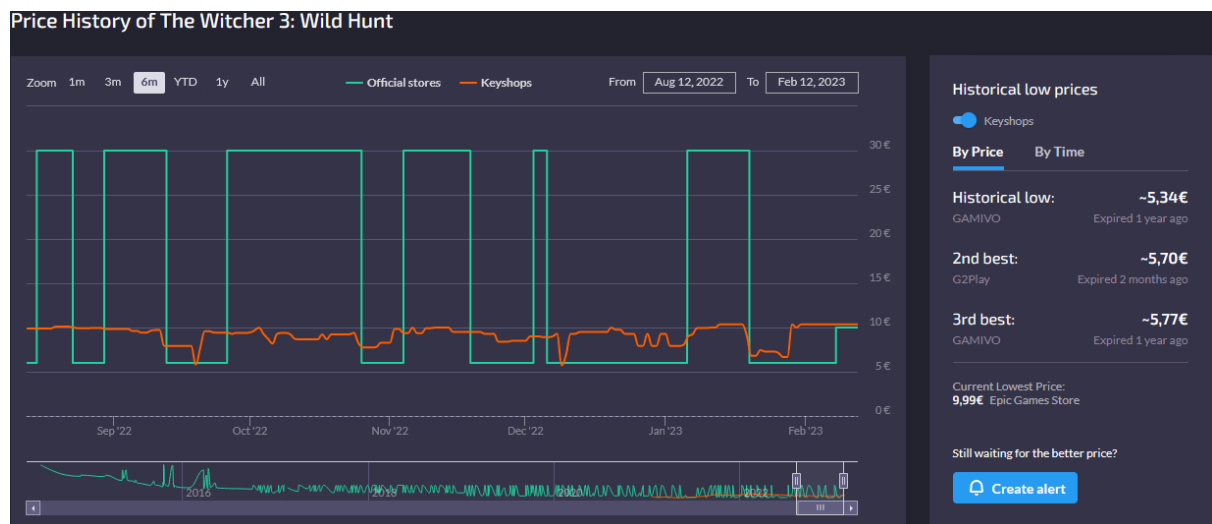
After disabling the official stores line.

Price History of The Witcher 3: Wild Hunt
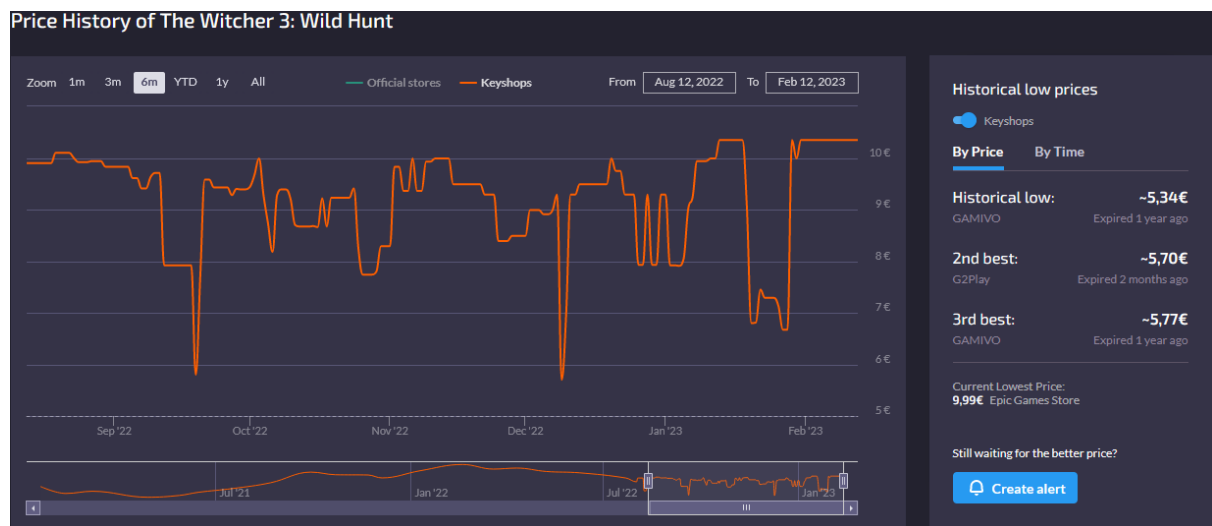
The interactivity of these line graphs extends to seeing the precise price at any point on the graph by simply hovering the mouse over the area. This is great as it allows users to see the exact price that they would like to purchase a game at and see how often it reaches their threshold, or how long they should expect to wait for that price to appear.

There is one major critique I have of these graphs, considering that the page lists prices of more than one official store and keyshop an important addition to this graph would be additional lines to represent more of the official stores and keyshops rather than just the lowest price of both as there are many users that prefer using a single platform for their games. Since the lines representing official stores and keyshops can already be toggled on or off, adding such functionality for all the stores should not be too difficult and so it would not be a large clutter of lines.

Line graphs being easy to understand are ideal to be used here where the target audience isn't particularly educated or interested in graphs as it provides at a quick glance whether price is trending upwards or downwards [4]. The price comparison data cannot be represented through any other graph as efficiently as through the line graph, however if we were to represent average monthly or weekly prices of games on official stores and on keyshops something like

a bar chart or butterfly chart would be more appropriate as it would allow users to immediately see which stores have the cheaper prices on average.

The pros of line graphs are that they clearly represent the changes and trends over periods of time, they are simple and efficient. It allows for representing two or more different lines for ease of comparison. It may represent minor changes which would not be visible on other graphs which makes this type of graph ideal for price comparison over time.

Cons of line graphs are that they can get rather messy when including many lines, however this can be overcome by allowing lines to be toggled on/off. It can only represent data which contains numerical values. It isn't the best at representing wide ranges of data and can pose challenges for fractions and decimals.

Conclusion

The visualisation technique that is used to represent this data on gg.deals is very efficient and gets its point across to the user, however I would add additional lines to represent different official stores and keyshops into the line graph as mentioned in the Analysis section of this paper or would create my original graph to represent average monthly or weekly prices using a bar/butterfly graph.

Video Link:

https://drive.google.com/file/d/1b3I3LFjhqT_kMklYnHjwRY2gUG5zUdfY/view?usp=share_link

References

[1] https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=3910e1a43420f0f8aa751f7b184e0c7582b98023.

[2] https://www.researchgate.net/publication/232592569_Conceptual_Limitations_in_Comprehending_Line_Graphs.

[3] https://www.researchgate.net/profile/Adebowale-Shadare/publication/311597028_DATA_VISUALIZATION/links/5851945608aef7d0309f20a7/DATA-VISUALIZATION.pdf.

[4] https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1756-8765.2009.01066.x.