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Novigrad in the evening sun. *The Witcher 3: The Wild Hunt* (CD Project Red 2015)

Special Issue

Gamevironments of the Past.

by

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its content: the narrative and “facts” presented in games are less relevant than the mechanisms which drive them (Chapman 2012).

From this fundamental premise, three core hypotheses emerge:

1. Computer Games have the potential to exert great influence on their consumers’ perceptions of history.

As has been demonstrated repeatedly, interactivity in the classroom supports deeper learning (Prince 2004, Roussou, Oliver and Slater 2008, Beauchamp and Kennewell 2010). The interactivity of games therefore provides a platform for the transmission of ideas and information (DeKanter 2005) and can encourage greater engagement with history than other passive media (Elliott 2011, Vosmeer and Schouten 2014, Hill 2016). The ability to construct counter-factual history through gameplay provides an important contrast to the determinism of other media forms and presents students with clear links between cause and effect (Ferguson 2001, King 2002, Brown 2008, Peterson, Miller and Fedorko 2013, Ortega 2015).

A corollary of this interactivity is that the player enjoys the freedom to explore what interests them. Even the simplest game provides the player with choices which lead to different outcomes. In more complex games this freedom of choice and action allows players to choose what they learn about the game world and, in the case of historical games, what they learn about history. This freedom of activity can be a major factor in players’ enjoyment of games which can enhance the medium’s impact (Ryan, Rigby and Przybylski 2006, Bostan 2009, Barendregt and Bekker 2011). The fact that the player is steering their experience towards their own interests increases their retention of information.

Because of this interactivity and freedom, games require complex and internally consistent mechanics and this may increase their perceived and actual impact. While

which are more linear, narrative and passive. Games which allow and require the player to engage with complex historical systems will leave a greater impression on their consumers. Likewise, games which supply a rich and varied environment to explore will have more of an impact on their players than games which only provide a superficial historical setting. As discussed previously, these elements are the foundation of the ability of computer games to affect students' formative understanding of a period of history. However, games which provide these environments in abundance can be less approachable than other genres which present less detailed accounts of a historical world and require less interaction with complex systems can have a greater influence on students' interest in history. In broad terms, and with obvious exceptions in every case, certain genres of game are more likely to influence student's knowledge of history while others are more likely to influence their interest in history.

Grand strategy games are typically well placed to influence gamers' knowledge of a period. This genre provides complex worlds with which the player must engage (Martin Wainwright 2014). They give the player control over a vast array of decisions with relatively few restrictions placed on their actions. The consequences of these actions are easily visible and a thorough understanding of the game mechanics must be developed in order to win. Grand strategy games can epitomise the factors which make computer games influential on consumers' understanding of history. Other genres can produce games which influence student knowledge of a period, but this influence tends to be less noticeable. First person shooters such as *Call of Duty* influence their players' perceptions of warfare by requiring them to participate in combat (Gish 2010). However, the player is only rarely required to interact with historical details or systems. This leaves their consumption of history from these games as a passive and optional activity greatly reducing the potential impact of these games on students' understanding of the period.

historical world, potentially encouraging gamers to investigate a period further.

However, roleplaying games tend towards fantasy which could limit their influence. *The Elder Scrolls V: Skyrim* (2011) is a complex game with many medieval elements, including mythological elements, but its influence is limited by the presence of dragons, magic and other fantastic elements (Hong 2015). At its most basic, the world of *The Elder Scrolls V: Skyrim* is quite clearly not medieval Europe, or even a rough approximation of medieval Europe. This disconnect between the game world and reality is a constant within most roleplaying games and may undermine their ability to affect their players' understanding of history or even their interest in a period.

Method

The survey was conducted through the Bristol Online Survey Tool. Respondents were drawn from first year students at the University of Winchester studying history or related disciplines. To provide an indication of the impact of students' education on their perceptions, respondents were asked the academic level to which they had previously studied different periods (Contemporary, Post 1900; Modern, 1500-1900; Medieval, 500-1500; Ancient, pre 500), which of these periods was of most relevance to their intended degree and whether they had ever been educated outside the UK. To provide a weighting mechanism respondents were asked to provide a score (0-10) for their level of interest in each period. In order to provide an indication of the perceived importance of specific genres, participants were asked if they considered a single item of media had particularly inspired their historical interests. They were then asked to score (0-10) the impact of their previous education and a variety of forms of media on their interest in each period. The option to respond that they had not consumed a particular format of media was included to allow the distinction between

media which had been consumed but was not perceived as influential and media which had not been consumed. The distinction between 'historical' and 'fantasy' media was left deliberately vague to encourage respondents to consider the overlap between the two.

These questions were then repeated regarding participants' understanding of history: how did they rate their knowledge of each period? Had a particular item of media particularly influenced their knowledge of history? How important was each form of media was in informing their knowledge of each period? These related but distinct questions allowed differentiation between media which inspired study and that which facilitated study. Finally, to ensure a representative sample and allow the consideration of differences in response along age and gender lines, participants were asked their age banding and their gender identity.

Results

One student was educated outside the UK, but only briefly at a very early stage in their education. They have been included in all the statistics below. Gender identity was split almost evenly 51.2% female (21 students) and 48.8% male (20 students). 68.3% (28 students) of respondents were under 20, 29.3% (12 students) were 20-25 and 2.4% (1 student) were over 25.

	Contemporary History	Modern History	Medieval History	Ancient History
Primary School	2.5	4.9	14.6	46.3
Early Secondary School	10.0	7.3	34.1	19.5
Late Secondary School	27.5	17.1	14.6	4.9
College	60.0	70.7	36.6	29.3

Table 1. What is the highest level to which you have studied the following periods of history? (%)

The majority of respondents studied contemporary and modern history to college level. Substantially fewer studied medieval or ancient history to this level. Almost half of the respondents had only studied ancient history at primary school.

	Contemporary History	Modern History	Medieval History	Ancient History
Interest in:	6.0	6.9	7.1	6.1
Knowledge of:	6.9	6.6	6.1	4.6

Table 2. Mean "Interest in" and perceived "Knowledge of" Different Periods of History (0-10)

Respondents consistently rated their knowledge of contemporary and modern history as substantially better than their knowledge of medieval and, especially, ancient history. However, when asked about their interest in the different periods, participants generally expressed more interest in modern and medieval history than other periods.

	Education	Museums etc.	Academic Books	Newspapers	Historical Literature	Fantasy Literature	TV Documentaries	News Broadcasts	Historical TV	Fantasy TV	Historical Boardgames	Fantasy Boardgames	Historical Computer Games	Fantasy Computer Games	Average
Contemporary	6.7	6.0	4.9	4.4	5.7	5.6	7.6	5.5	7.4	6.5	5.5	4.3	6.6	5.1	5.8
Modern	7.4	6.9	6.0	5.0	6.4	6.1	7.4	5.4	7.7	6.6	5.0	3.8	6.4	4.9	6.1
Medieval	6.2	6.8	6.3	4.9	6.6	6.0	7.1	4.6	7.3	6.4	5.3	4.8	6.2	5.2	6.0
Ancient	6.0	6.3	5.0	4.2	5.8	5.8	7.0	4.4	7.0	6.6	4.6	4.3	6.3	5.1	5.6
Average	6.6	6.5	5.6	4.6	6.1	5.9	7.3	5.0	7.4	6.5	5.1	4.3	6.4	5.1	5.9

Table 3. Mean responses to the question: *To what extent have the following forms of media influenced your interest in the following periods of history? (0-10)*

TV documentaries and Historical Fiction TV were consistently cited as very influential across all periods. Other forms of media including Museums, Fantasy TV and Historical Computer Games were perceived to have similar influence as previous education.

		Contemporary		Modern		Medieval		Ancient		All	
0	Low	9.1	13.6	9.1	9.1	17.4	21.7	15.0	20.0	12.6	16.1
1		0.0		0.0		4.3		5.0		2.3	
2		0.0		0.0		0.0		0.0		0.0	
3		4.5		0.0		0.0		0.0		1.1	
4	Mid	4.5	31.8	13.6	36.4	8.7	17.4	5.0	15.0	8.0	25.3
5		13.6		13.6		8.7		0.0		9.2	
6		13.6		9.1		0.0		10.0		8.0	
7	High	18.2	54.5	13.6	54.5	17.4	60.9	5.0	65.0	13.8	58.6
8		4.5		13.6		17.4		15.0		12.6	
9		18.2		13.6		8.7		15.0		13.8	
10		13.6		13.6		17.4		30.0		18.4	

Table 8. Distribution of Responses to the question: *To what extent have Historical Computer Games influenced your knowledge of the following periods of history? (%)*

A relatively high percentage of responses appear at the high (7 or more) and low (3 or less) ends of the scale. This was particularly pronounced when considering responses for medieval and ancient history.

	Interest in History	Knowledge of History
Literary	14	16
Visual	19	9
Digital	9	4
Audio	1	
Total	43	29

Table 9. Frequency of citations of particular media formats as the strongest individual influence on participants' interest in and knowledge of history (number of responses). Note that totals may exceed number of participants as multiple responses were accepted.

Respondents frequently noted individual items of literary or visual media as the strongest single influence on their interest in history. Digital media appeared less often, but were still the most important single factor for more than a fifth of respondents. Both visual and digital media were less frequently cited as the most important individual items in developing participants' knowledge of history while literary media appeared more frequently.

Discussion

Perceived Impact of Historical Computer Games

Participants often felt Historical Computer Games had a very strong influence on their understanding of history (6.4 on average) when compared to other forms of modern media. Only previous education (7.2), academic books (7.1), TV documentaries (7.3) and historical fiction TV (6.7) were seen as greater influences. These games were also viewed as having an important role in the development of participants' interest in history (6.4). Although seen as less influential than historical fiction TV (7.4) or TV documentaries (7.3), they were thought to be roughly as influential as historical fictional literature (6.1), museums (6.5), fantasy TV (6.5) or students' previous education (6.6). While some other forms of media were generally reported as more influential, these results highlight the general perception that historical computer games had a significant impact.

The high potential of computer games to influence individual gamers' perceptions of history is demonstrated through massive variations in responses from individual students. The standard deviation of responses relating to historical computer games was the second highest of all media forms for every period (3.8). Respondents tended to report either very strong or very weak influence from games: 45% said they had a strong impact on their interest (7 or higher), 30% a restricted influence (3 or less); 59% rated them as very relevant (7 or higher) to their knowledge, 16% as largely irrelevant (3 or less). A substantial proportion of students who engaged with these games saw them as among the most influential factors in both their interest in and understanding of history in general.

Furthermore, a significant number of respondents (9, around a fifth of the responses) stated that a computer game or games were the most important factor in developing

demonstrates the potential power of Roleplaying games but underlines that for these games to be influential they must be closely and clearly linked with historical periods.

Taken as a whole, these results support the third hypothesis: participants viewed different games, and by extension different genres of game, as influencing their interaction with history in different ways. However, the very limited sample available in support of this hypothesis demands further exploration in the future.

Variation by Gender

This survey was not designed to test variations in perceived media influence across gender lines. The already small sample size is effectively halved by considering responses from only one gender hence it can offer limited insight here. However, the results of the survey present a clear difference between male and female respondents. On average male students reported that their interest in history was influenced by historical computer games to a significantly greater extent (7.3) than their female counterparts (4.3): the largest difference in impact of a single media type between genders by a wide margin. Furthermore, none of the female respondents listed a game as the most influential factor in either their interest in history or their knowledge of history. This is a dramatic difference between genders and bears further commentary.

It is first of all important to underline that this divergence is not evidence of the traditional stereotypical identification of gamers as males under 25 years of age. Consumers of games in general are distributed across genders and age groups (Williams, Yee and Caplan 2008). These results do not demonstrate that female respondents were less likely to play computer games, rather it suggests that they are less likely to present games as an influencing factor in their interest in history or their historical knowledge.

Both factors could increase the chances that male respondents would describe this media as having an effect on their perceptions of history.

This divergence may also be indicative of a gender divide in preferences for genres of computer game. While gender differences may not be as marked as is typically thought (Vermeulen and Van Looy 2016), male players as a whole seem to be more likely to engage with role-playing, first person shooter and strategy games (Hayes 2005, Rehbein et al. 2016, Vermeulen and Van Looy 2016). The reasons for this divergence are complex but include differing attractions and aversions along gender lines towards violence, sexual content, social interaction, and competition (Subrahmanyam and Greenfield 2000, Lucas 2004, Hartmann and Klimm 2006, Hartmann, Möller and Krause 2015). As suggested above, the first person shooter and real time strategy genres are more likely to promote a player’s interest in history, while grand strategy games can have a considerable impact on their knowledge of a period. If male gamers are more likely to play games of these genres, they are more likely to be influenced by games in this fashion.

These results suggest the existence of a divide between self-perceived impact of computer games on male and female interactions with history. The sample size is too small to draw any solid conclusions and the survey was not designed to support analysis in this area. Nevertheless, the results underline the need to investigate this issue further.

Conclusions

The survey has demonstrated that computer games have the potential to heavily influence undergraduate students’ reported interest in history and their reflexive knowledge of history. In several cases, these games were perceived to play a central

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