

High Tea Evaluation Report



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August 2011

Contents

Executive summary	3
Introduction	4
Analytics	5
Key findings from the online survey	8
Interviews and focus group	10
Wider reception	12
Working process	14
Conclusions	15
Appendix 1: High Tea Survey topline results	16
Appendix 2: Report on High Tea survey and interviews by Opinion Leader	22
Executive summary	22
1 Introduction	23
2 Main findings	25
3 Conclusions	37
Appendix i: Demographic data of survey respondents	38
Appendix ii: Demographic data on the interview participants	40
Appendix iii: Online survey questionnaire	41
Appendix iv: Discussion guide for interviews	46
Appendix v: Discussion guide for focus group	48

Executive summary

High Tea is a browser-based strategy game based around the opium trade in China's Pearl Delta in the 1830s. It was commissioned as part of the web presence for 'High Society', a Wellcome Collection exhibition that ran between November 2010 and February 2011.

Our objectives were to reach new audiences with Wellcome Collection themes and content, establish new and meaningful engagement with the themes of the exhibition and do this through a high-quality game that offered a satisfying playing experience.

This report is an evaluation of the game against these objectives, through both quantitative and qualitative research. Plays were tracked with Google Analytics; an online survey was carried out; individual players were interviewed in depth and a focus group held; and comments on games portals and wider reaction was tracked.

Our main findings are:

- High Tea vastly **exceeded its expected audience**, and has been played over 3 million times to date, delivering at a cost of approx **one play per penny**.
- The majority of the audience were **new to Wellcome Collection, aged 16-24** and came from **outside the United Kingdom**.
- Players were stimulated to **find out more** about the 19th-century opium trade and wars.
- The game **created genuine discussion** about its subject matter in gaming and other forums.
- Through developing High Tea we have discovered **new ways of creatively collaborating**, marrying our content knowledge to games development expertise.
- This evaluation itself has fed into **research and dissemination** across our sector: outputs so far include two conference presentations and a book chapter.
- Distributing High Tea to **games portals and aggregators** was a highly effective way of finding an audience.
- **Social media** was not an effective means of finding an audience.
- Overall, players spent an average of **almost fifteen minutes** playing High Tea, compared to a website visit average of just over two minutes.
- Players found the game **engaging** and thought of it as **high quality**.
- Some players' **feelings about British history** were changed as a result of playing the game.
- The reaction and discussion around the game carried on beyond game portals, on blogs and forums, often in **unexpected ways**.
- **Working with an agency** with significant experience in the field of educational games paid big dividends in reaching new audiences.
- **Our learning from the process** suggests that future games could also be **user-tested** in advance.
- Those players familiar with us were **pleasantly surprised** to see us making a game like this, and they and others want to see more from us in future.

Introduction

High Tea is a browser-based strategy game in which the player takes the role of a 19th-century British opium smuggler in the Pearl Delta. In gameplay lasting approximately twenty minutes, and covering nine years of history, the player must sell opium in order to buy enough tea to slake Victorian Britain's thirst, while amassing a personal fortune. The game ends when the First Opium War of 1839 breaks out.

The game was commissioned from the agency Preloaded as part of the web presence for 'High Society', an exhibition that ran at Wellcome Collection between November 2010 and February 2011, exploring the history and culture of recreational drug use, displaying a combination of historical artefacts and contemporary artwork.

Our objectives were:

- To reach **new audiences** with Wellcome Collection themes and content.
- To establish **meaningful engagement** with one of the exhibition's themes.
- To do this through a **high-quality game** that offered a satisfying playing experience.

This report evaluates the success of High Tea against our objectives through extensive research into responses to the game. It is divided into five sections with supporting appendices:

- **Analytics:** information about the game's audience distribution and measurable engagement derived from Google Analytics.
- **Survey:** the results of a survey completed by players in the first two weeks of the game's launch.
- **Interviews and focus groups:** results of interviews with players, and a focus group discussion.
- **Wider reception:** looking at comments on gaming sites where the game was played, and reaction in gaming blogs and press.
- **Working process:** reflections on how the game was produced, and the working relationships it created.

Results from all of these suggest that the game was a success, reaching new audiences and engaging them in meaningful ways. In the conclusion, we look at larger lessons we've learned from that success and implications for further work with games.

Analytics

Thanks to Preloaded's practice of embedding hooks for Google Analytics into the body of the Flash game itself¹, we were able to collect rich and meaningful data about how and where High Tea was played.

For time-based analysis, we are taking as our primary measure the number of times the game was played, counted by the number of time the 'game started' hook was reported to Analytics. This means the same player playing the game three times, on one or more occasions, counts as three 'plays'.

Data collection is ongoing as long as the game remains live, but for the purpose of this report, we are using statistics from the three-month period between 31 January (the day the game was launched) and 30 April.

3 million gameplays

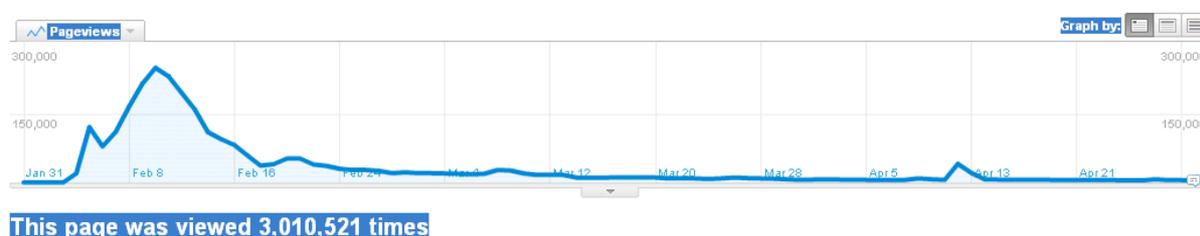


Fig 1. High Tea traffic 31 Jan-30 Apr 2011 as measured by Google Analytics

Our audience target for High Tea was 100,000 gameplays in month one, with a rolling monthly target of 50,000 plays.

During the three-month period analysed, High Tea was played 3,010,521 times. Just over half of the plays came during the first two weeks of its launch, in two peaks. Over the first weekend of its launch (5-6 February), it was played 202,666 times. During the following week, it was played 1,345,862 times. A third peak of 41,399 plays happened on 12 April when High Tea was featured on a gaming portal.

Both initial and rolling targets were vastly exceeded. In the absence of any other publicity, the game continues to be played about 5,000 times a day, and we estimate a total of 4-5 million plays over its total lifetime. The game also generated 27,995 clickthroughs directly to the Wellcome Collection site.

Social media

High Tea included a feature for players to post their score to Facebook and/or Twitter. Interestingly, neither of these seemed to be particularly popular. During the period discussed, there were only 5,831 posts to Twitter and 401 posts to Facebook. Tracking bit.ly links indicated that there was also a low level of clickthroughs from social media posts to the game itself.

¹ <http://preloaded.com/blog/2010/08/16/how-we-publish-an-online-game>

Distribution and syndication

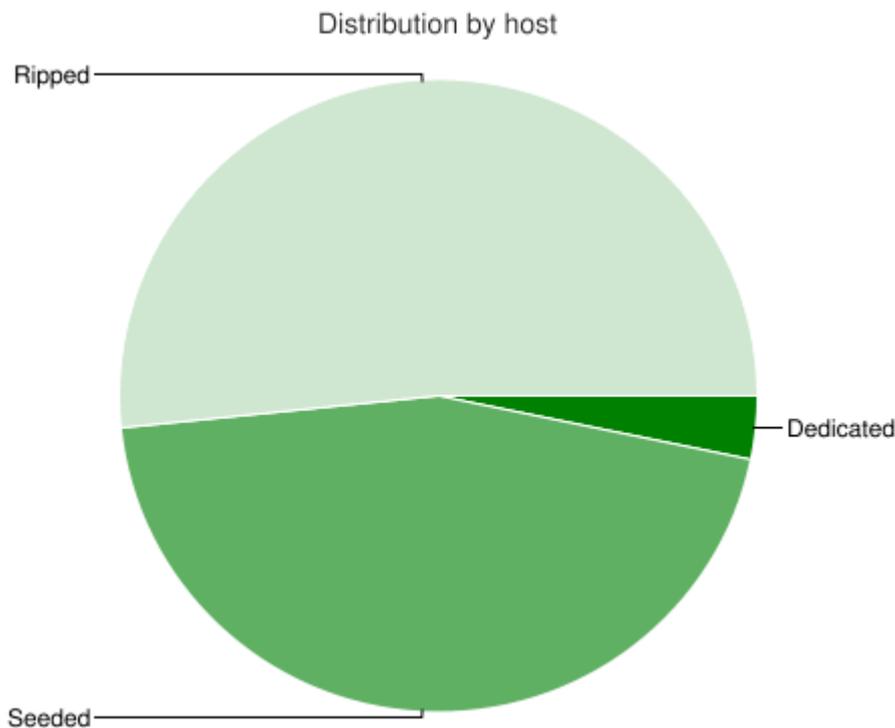


Fig 2. Distribution of High Tea by host

Preloaded designed High Tea so that it could be distributed and played in three ways:

- The game could be played on a dedicated Wellcome Collection website.
- The game was syndicated ('seeded') to popular games portals.
- The game was produced in such a way that it could be unofficially 'ripped' and published on other websites without our consent or intervention.

In each case, Analytics hooks allowed us to see where and how often the game was being played. 2.63% of plays took place on the dedicated website, 45.13% took place on seeded websites, and 52.24% took place on websites that had ripped the game, the majority of which were previously unknown to us.

It seems clear from this that High Tea did reach new audiences, specifically gaming audiences, and that the tactic of constructing the game in such a way that it could be distributed in this way was unquestionably the right thing to do.

Time spent playing

A full game of High Tea takes approximately 20 minutes to complete. The average time spent playing the game was 14 mins 41 seconds. This includes multiple plays within the same session, but not repeated separate visits. For comparison, the average time spent on the Wellcome Collection site during the same period was 2 minutes and 7 seconds.

Geographical distribution

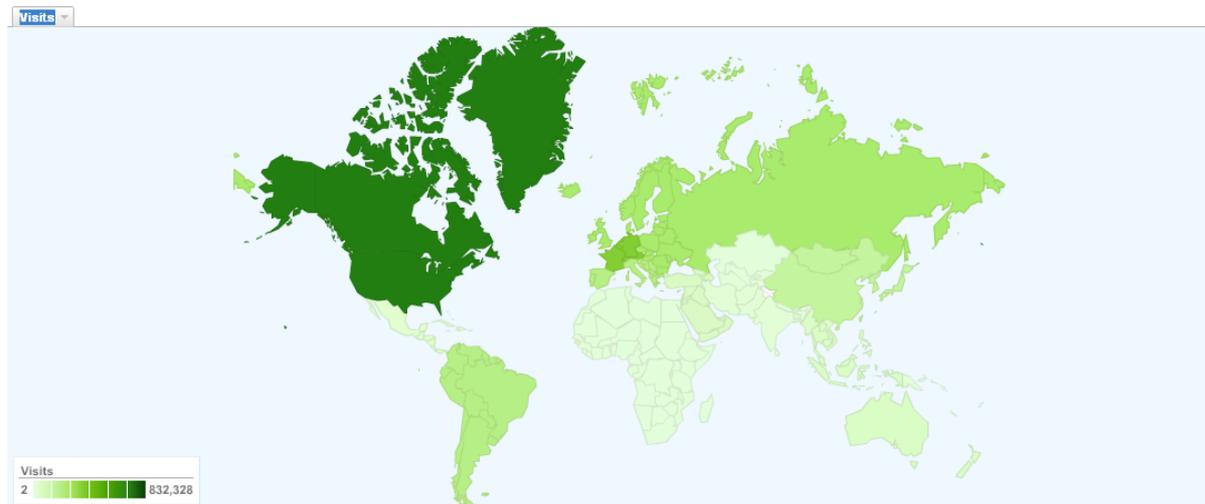


Fig 3. Google Analytics view of global audience

High Tea's audience was worldwide. 31.4% of visits came from Northern America and 47.8% from Europe; the UK accounted for only 6.5% of visits. Though 6.4% of visits came from Eastern Asia, there wasn't a large audience in China.

Worldwide impact



Fig 4. Google Trends search volume for 'opium wars'

Given the volume of traffic, we also wondered whether there was any identifiable raised consciousness of the nineteenth century opium trade and wars beyond what we could measure through the game itself. We looked at Google Trends, which offers statistics on the overall popularity of search terms.

Searches for 'opium war' increased at the end of January, the time when High Tea was launched, and have since reached a plateau. Spikes in search traffic are usually accompanied by a spike in news references (in the case of the opium wars, often November); in the case of the spike corresponding to High Tea, there was no corresponding news story, suggesting that High Tea may have driven an identifiable spurt of global interest in the history of the opium wars.

Key findings from the online survey

During the first two weeks after High Tea was published (until Thursday 10 February) players were invited to take part in a short survey, designed by the Trust's SPPU research team, asking them about their experience of the game. Over 1,100 responses were received in total. This was obviously a highly self-selecting sample, but the responses gave us useful insights into how players regarded the game.

The complete top line results of the survey form Appendix 1 of this report.

Quality of the game

Respondents' feelings were overwhelmingly positive about the game itself. 91.8% of respondents thought the game was 'very good' or 'fairly good'.

Audience reach

Only 6.3% had found the game through the Wellcome Collection website, suggesting that the majority of respondents had not approached the game through known Wellcome channels.

Audience demographic

Respondents to the survey were overwhelming male (88%). However, this skew in the survey itself was probably determined by the sites where High Tea was played during the short period of time that the survey was open. The game was rated equally highly by both male and female players, suggesting that it didn't have inherently 'male' appeal.

The results for age show that we were successful in reaching a younger audience than is usual for Wellcome Collection. Most were under 24 (64%) with 32% between the ages of 16 and 19.

Awareness and learning

Awareness of the game's context seemed high. 66.9% claimed some previous awareness of the nineteenth century opium trade, and 67.6% claimed some previous awareness of the opium wars. Nevertheless, the game also seemed to stimulate the desire for greater learning, with 53.4% of players declaring that they were likely to find out more about the opium trade and/or wars.

Feelings about the British opium trade

We are aware that the opium trade and subsequent wars are a controversial subject both in Chinese and British history. As well as investigating the educational impact of High Tea, we wanted to know whether players' feelings about the historical actors had changed as a result of playing the game. The survey also asked players whether their feelings about the actions of the British, both individual traders and Empire, had changed as a result of playing High Tea.

While the feelings of the majority (57.6%) had not changed as a result, over a quarter of players (27.5%) felt more negatively, while 9.5% felt more positively. We find these identifiable changes in attitude particularly interesting because the game did not deliver particular moral judgements on any of the historical actors in the opium trade.

Open question

The survey also included an open field question for players to add any further comments about the game. The largest number of responses relate to gameplay, again mainly positively, but there were also many responses discussing the educational or historical aspects. Most of these were favourable, with players happy to be learning something whilst playing (and in some cases asking for even more complexity and detail).

Top game, very well done and fun. That is the way you have to teach history ;)

Well I am a Chinese, and I had negative feelings [sic] to the History about Opium War. However, this game provided a perspective towards other roles in the historical stage. Good Work.

A very small number thought that the subject matter was handled inappropriately.

The british were an awful [sic] lot who used trade as a means of poisoning the world, enslaving people, and hooking people on drugs, all for profit. These people are not to be glorified.

Interviews and focus group

The online survey requested contact details from those respondents who were willing to follow up with a telephone interview or invitation to be part of a focus group. From those who agreed, seven were interviewed by telephone, and three took part in a focus group. These allowed us to further investigate some of the questions about learning and feelings from the survey, but also to look at areas not covered by the survey.

Telephone interviewee participants were mostly from England, the rest being from the United States, Brazil, Canada and Scotland. All the focus group participants were relatively local and were all already familiar with Wellcome Collection. Obviously the sample size was fairly small, but there were several interesting findings.

A fuller assessment of both interviews and focus groups, carried out for Wellcome Collection by Opinion Leader, forms Appendix 2 of this report.

Appeal of the game

It seems that the initial decision to try the game was based on a number of different factors. Its appearance on the front page of the portals with a high rating was an important factor, as was the appeal of the name and curiosity about the drug references in the subject matter. For some, the historical context and factual nature was a draw.

Generally, feedback on the gameplay, design and music was very positive, and people particularly liked that it was easy enough to understand how to play right away.

Potential improvements

Some suggested gameplay tweaks, like allowing greater amounts of opium to be bought in one go, or increasing the complexity. A couple of telephone interviewees felt that even more information about the history and situation could have been included.

I thought it was a really nice sort of entrance into you know that little bit of history, but you really came up with a successful game which I think captured attention and you might have even been able to get more out of it from an educational perspective I think, which I really mean that as a compliment.

The focus group in particular thought it could have included more information or links to further information within exhibition content or elsewhere. Or, to allay fears about sensitivities within China about the Opium Wars, perhaps some additional text in Mandarin to explain more.

Learning

Though some were aware of the Opium trade or Wars beforehand, others weren't at all, and all but one who was already very familiar with the history felt they had learnt something. For many it was the connection to tea that they hadn't been aware of, but for others it was a fundamental shift in their understanding.

...what you play could probably read in a book and have a test on it, and you probably wouldn't understand it fully, but when you are actually being put in that situation, you understand it completely immediately and I think it is a really really cool way to learn about certain aspects of history.

...it was of particular interest that the empire certainly had a big effect and had plenty of power on China to enable opium really to become legal for trading, wasn't it? And to get Hong Kong out of it as well, which was quite a significant thing.

Inspiration to further research

Several interviewees went on to research the Opium Wars further, whether by reading the Wikipedia page, search our own site and in one case, reading a novel about China.

Morals and feelings

Many were unchanged in their view of the British Empire, because they already had a rather dim view of its actions, some were shocked.

It was a bit of an eye opener, yes. I suppose, I am probably terribly ignorant, I have never really studied history very much. But I suppose one had a vague sort of feeling at the back of one's mind that Britain's colonial history is nothing much to be proud of, but I was a little bit shocked.

Several were unbothered by their morally dubious actions within the game, because it was just a game and they were therefore at a remove from having to think about it. For others their experience was the opposite:

I know it is a game, but it makes you think and this was exactly what the British were doing.

For a couple, the fact that the game made it impersonal reflected the fact that it was impersonal for the traders, and therefore slightly easier to understand why they were able to do what they did, which perhaps explains the survey result that suggested some felt more positively towards the British Empire after playing the game.

But in the game you get completely caught up and you don't think about it because it is a game, but you are able to empathise a little bit with the bad people which I think is good, because you should never look back on people in history and think those people were bad and we are better because we don't do that

Connection to Wellcome

Of the telephone interviewees, most were unaware of Wellcome Collection before, and a couple followed it up to take a look at our website. All the focus group attendees were fairly familiar with us. They were surprised but pleased to see us doing something like this and wanted to see more games from us.

Wider reception

We also collated the responses 'in the wild': comments on games portals (of which there were over a thousand), reviews, blogs, discussions, podcasts, YouTube videos and so on. Many resulted in interesting discussions about the games content. This was often in regards to the history of the Opium Wars but also the economics represented by the game, which was unexpected.

We have also presented information about the game to two conferences (Museums and the Web 2011 and the BSA's Science Communication Conference), written an editorial for Wellcome News² and a chapter for a forthcoming Museumsetc book, 'Museum at Play'³, and been invited to the Science Museum and Royal Opera House to discuss it.

Comments on games portals

We had expected that one advantage of placing High Tea on major games portals would be the opportunity to see comments from users and add those to our evaluation. We had not expected the sheer number of comments; over 400 on Kongregate, over 100 on Newgrounds and hundreds on Armor Games, but also many scattered around the hundreds of other sites which ripped High Tea from those official portals.

The quality of much of the commenting was a pleasant surprise, particularly from Kongregate and Newgrounds. Though many comments focused on the game play, a substantial number discussed the history and economics or expressed satisfaction that they were playing a game with a factual basis, and learning something whilst having fun.

How come I only understood what I'd seen in a museum after playing this game?!
Comment on Kongregate

The bit of history stuff is like "heh, wel damn, I jest LeRnd sumtin" [sic] so I kinda feel smarter already after playing your game
Comment on Newgrounds

Wait a minute, I'm doing MATH!!
Comment on Kongregate

There were a very small number of comments that expressed the opinion that the game was in poor taste, but what was interesting was that in each case other commenters responded to point out that the game's intention was not to trivialise the history but was instead educational and awareness raising.

We did find the game ripped to a Chinese site and as best as we can translate, the site author had presented it with an interestingly ambiguous statement to the effect that they of course couldn't recommend the game because of its content, but actually it was a very good historical textbook.

² <http://wellcometrust.wordpress.com/2011/03/23/museums-need-more-compelling-games/>

³ <http://museumsetc.com/products/museums-at-play>

Reviews and blogs

Within a day or two of the game going live we had our first review - on Casual Girl Gamer⁴, who had picked it up from Martha's twitter feed. A lengthy review that was highly positive, it also took the time to discuss the historical context in some depth. This was our first example showing that the game might provide an opportunity to discuss the issues in spaces where the game wasn't even being played.

Once the game had reached a wider audience more reviews appeared, including on major game review sites such as Jay is Games⁵ where it led to an interesting debate about the ethics in the comments thread. To date we have found 18 reviews, all positive, in many cases discussing the historical context (some in very great depth⁶) and in a few generating debate in the comments as with Jay is Games.

An unexpected outcome was reference to the lesson in economics that the game was apparently providing. On Popmatters they discussed this unintended aspect under the title: *'High Tea: Reflex Economics or Twitch Based Economy'*⁷.

Forums and social news websites

There were substantial threads on both Reddit⁸ and Metafilter⁹ discussing the game, as well as a thread on a French site called Koreus¹⁰. Amongst the comments discussing gameplay were ones on discussing its relation to Wellcome Collection, the history and ethics (on Metafilter) as well as, again, the economic aspects (a discussion about amortisation on Reddit).

Videos and podcasts

An outcome we hadn't anticipated at all was a series of reviews or walkthroughs on YouTube¹¹ (of varying quality), and even a video showing how to use a piece of software to hack the game and win¹². More recently, several months after the game launched, it appeared as part of a Flash game round up on Popmatters's 'Moving Pixels' podcast¹³. It received several minutes of in depth discussion and ultimately was the recommended game of several of the podcast participants.

Publications and presentations

The response to our presentations at conferences and discussions with counterparts at other institutions has shown that people are impressed and intrigued by what we have achieved with High Tea and are keen to find out what we learnt as well as share learnings of their own related to games.

⁴ <http://www.casualgirlgamer.com/articles/entry/72/review-high-tea/>

⁵ http://jayisgames.com/archives/2011/02/high_tea.php

⁶ e.g. <http://neurobonkers.com/?p=1804>

⁷ <http://www.popmatters.com/pm/post/137223-high-tea-reflex-economics-or-a-twitch-based-economy>

⁸ http://www.reddit.com/r/WebGames/comments/ff921/high_tea_buy_opium_sell_opium_buy_tea/

⁹ <http://www.metafilter.com/100524/Opium-Silver-Tea>

¹⁰ <http://www.koreus.com/modules/news/article8909.html>

¹¹ e.g. <http://www.youtube.com/watch?v=IErozQM13zw>

¹² <http://www.youtube.com/watch?v=AztDaYRhRaI>

¹³ <http://www.popmatters.com/pm/post/141668-moving-pixels-podcast-2011-flash-game-round-up>

Working process

Producing High Tea involved some risk: we had a relatively limited budget and a short amount of time from conception to launch, which meant that room for corrective iterations was restricted. Nevertheless, we found the experience of working with Preloaded highly positive, and there were several factors in the working process itself which we consider contributed to the game's success.

In choosing Preloaded to work with, we chose an agency who have significant experience creating casual games, and their expertise paid off in finding High Tea an audience. The rip-and-distribute model, and the Google Analytics hooks which allowed us to track the game in all its locations, were both at Preloaded's suggestion. Preloaded also have key contacts at casual gaming portals that allowed, for example, the game to find a home on Armor Games, and to be integrated into Kongregate's badge-earning system, both significant sources of traffic for High Tea.

The working process also involved a novel three-way collaboration between Publishing, who acted as instigators and project managers, curators in Public Programmes (especially freelance High Society curator Mike Jay), who acted as a source of knowledge and interpretation for the subject matter, and Preloaded as expert game developers. This collaboration was not just a formal but a creative collaboration, and offers possible models for future cross-Trust working beyond the client/service model.

Rigorous testing of the game itself was integrated into Preloaded's development work, using the company Testology to ensure the final build and release were of a very high standard. This testing was limited to game functionality, however, and having seen the results of the focus group and interviews, we would be keen in future game development to include some user testing at the stage of concept development.

Finally, building this evaluation itself into the working process allowed us to approach the project in a spirit of learning and discovery. Preloaded's openness to our extensive evaluation drove their approach to making the raw access statistics open to analysis, and we were happy to share our learnings with them to help them make better games in future. Presenting these learnings beyond the Trust also enables us to make contacts with whom we can develop models of best practice for both game production and game evaluation.

Conclusions

We are immensely proud of the reception that High Tea has received across the board. By any quantitative measure, it would certainly appear to have been successful, particularly in meeting our aim to reach a new audience. It is hard to see how else we might have engaged millions of people across the world, especially on a budget of this size. From a financial perspective, the yield of the project is about one play of the game for every penny spent on it, not counting the reach of publicity for the game beyond the game.

The qualitative results from the survey, telephone interviews and focus groups and wider reception also confirm that we have achieved our objectives regarding the educational outcomes and engagement with the themes of the High Society exhibition. Players responded positively to the idea of playing a game where they learned something, and were moved in many cases to investigate further and learn more.

We have some thoughts about what we would do differently next time. On this occasion our tight schedule precluded it, but in future it would be better to do more of this testing in advance of launch to feed into the development of the game. For example, in this case perhaps we would have found that we could provide more information about the history to players (as was requested by some), or equally found that doing so would render the game too dense and boring.

The process of developing the game with Preloaded was definitely both interesting and enjoyable, and it was hugely satisfying to see the response it has received. Perhaps more surprising was how fascinating the process and results of our evaluation turned out to be. We hope that our findings will be useful to organisations and people working in this area, and would encourage others to share their game evaluations as well.

One of the outcomes of our discussions with others in the cultural heritage sector has been the establishment of a wiki for museum games to share information. You can find it at:

<http://museumgames.pbworks.com/>

Appendix 1: High Tea Survey topline results

Q1	Rating			(Single answer (Radio buttons))
	Overall, how would you rate High Tea?			
	Total	1123		
	Very good	507	45.1%	
	Fairly good	525	46.7%	
	Neither good nor poor	53	4.7%	
	Fairly poor	19	1.7%	
	Very poor	15	1.3%	
	Don't know	4	0.4%	
Q2	Instructions			(Single answer (Radio buttons))
	How clear or unclear did you find the instructions for playing the game?			
	Total	1123		
	Very clear	391	34.8%	
	Quite clear	514	45.8%	
	Neither clear nor unclear	118	10.5%	
	Quite unclear	72	6.4%	
	Very unclear	16	1.4%	
	Don't know	12	1.1%	
Q3	Finding the game			(Multiple answers (Checkboxes))
	Where did you find High Tea?			
	Total	1123		
	Wellcome Collection website	71	6.3%	
	Kongregate website	329	29.3%	
	Can't remember	66	5.9%	
	Other (please specify)	674	60.0%	
Q3a				(Free text (Essay))
	Other (please specify)			
	See excel sheet (not included, available on request)			

Q4	Recommendation	(Single answer (Radio buttons))		
How likely or unlikely are you to recommend the game to a friend?				
Total	1123			
Very likely	346	30.8%		
Quite likely	346	30.8%		
Neither likely nor unlikely	237	21.1%		
Quite unlikely	62	5.5%		
Very unlikely	73	6.5%		
Don't know	59	5.3%		

Q5	Opium in the 19th century	(Rating scale (List))		
Before playing this game, were you aware of the:				
Trade in opium in the 19th century				
Total	1123			
Yes, I was aware but did not know exactly what it was	359	32.0%		
Yes, I was aware and knew what it was	504	44.9%		
No, I was not aware	223	19.9%		
Don't know	37	3.3%		
Opium wars in the 19th century				
Total	1123			
Yes, I was aware but did not know exactly what it was	352	31.3%		
Yes, I was aware and knew what it was	408	36.3%		
No, I was not aware	310	27.6%		
Don't know	53	4.7%		

Q6	Finding out more	(Single answer (Radio buttons))		
After playing this game, how likely or unlikely are you to find out more about the trade in opium, or the opium wars?				
Total	1123			
Very likely	202	18.0%		
Quite likely	397	35.4%		

Neither likely nor unlikely	323	28.8%	
Quite unlikely	89	7.9%	
Very unlikely	90	8.0%	
Don't know	22	2.0%	

Q7	British traders and the British Empire	(Single answer (Radio buttons))
Have your feelings about the 19th century British opium traders and the British Empire changed as a result of playing this game?		
Total		892
I feel more negatively towards 19th century British opium traders and the British Empire	245	27.5%
I feel more positively towards 19th century British opium traders and the British Empire	85	9.5%
My feelings have not changed	514	57.6%
Don't know	48	5.4%

Q8	Any other comments	(Free text (Essay))
If you have any other comments you would like to make about High Tea, please use the box below		
See excel sheet (not included, available on request)		

Q9	Gender	(Single answer (Radio buttons))
Are you:		
Total	1123	
Male	990	88.2%
Female	83	7.4%
Prefer not to say	50	4.5%

Q10	Age	(Single answer (Radio buttons))
Which of the following age groups do you belong to?		
Total	1123	
16 - 19	362	32.2%
20 - 24	356	31.7%

25 - 34	263	23.4%	
35 - 44	63	5.6%	
45 - 54	14	1.2%	
55+	5	0.4%	
Prefer not to say	60	5.3%	

Q11	Current location	(Single answer (Drop down menu))	
Please select your current location from the drop down list:			
Total	1123		
Prefer not to say	63	5.6%	
Albania	1	0.1%	
Angola	2	0.2%	
Argentina	9	0.8%	
Australia	16	1.4%	
Austria	9	0.8%	
Barbados	1	0.1%	
Belarus	1	0.1%	
Belgium	18	1.6%	
Bosnia-Herzegovina	3	0.3%	
Botswana	1	0.1%	
Brazil	23	2.0%	
Bulgaria	6	0.5%	
Cambodia(Kampuche)	1	0.1%	
Canada	47	4.2%	
Chile	3	0.3%	
China	15	1.3%	
Colombia	3	0.3%	
Croatia	4	0.4%	
Czech Republic	8	0.7%	
Denmark	10	0.9%	
Ecuador	3	0.3%	
Egypt	2	0.2%	

Finland	12	1.1%	
France	61	5.4%	■
Germany,Federal R	66	5.9%	■
Greece	7	0.6%	
Guinea-Bissau	1	0.1%	
Hong Kong	12	1.1%	
Hungary	10	0.9%	
Iceland	1	0.1%	
India	7	0.6%	
Indonesia	4	0.4%	
Israel	3	0.3%	
Italy	24	2.1%	
Japan	7	0.6%	
Kazakhstan	1	0.1%	
Korea, South	6	0.5%	
Latvia	5	0.4%	
Lithuania	6	0.5%	
Macedonia	1	0.1%	
Malaysia	8	0.7%	
Malta	1	0.1%	
Mexico	9	0.8%	
Netherlands	37	3.3%	■
New Zealand	5	0.4%	
Niger	1	0.1%	
Norway	12	1.1%	
Pakistan	1	0.1%	
Philippines	3	0.3%	
Poland	18	1.6%	
Portugal	8	0.7%	
Puerto Rico	1	0.1%	
Romania	12	1.1%	
Russia	11	1.0%	
Serbia	1	0.1%	
Singapore	11	1.0%	
Slovak Republic	1	0.1%	
Slovenia	1	0.1%	

South Africa	2	0.2%	
Spain	21	1.9%	
Sweden	16	1.4%	
Switzerland	11	1.0%	
Thailand	1	0.1%	
Turkey	8	0.7%	
Ukraine	4	0.4%	
United Kingdom	129	11.5%	■
United States	300	26.7%	■
Uruguay	2	0.2%	
Venezuela	1	0.1%	
Viet-Nam	2	0.2%	
Zimbabwe	2	0.2%	

Appendix 2: Report on High Tea survey and interviews by Opinion Leader

Executive summary

As part of their “High Society” exhibition the Wellcome Collection produced an online game “High Tea” that was based on the 19th century opium trade between the British and Chinese. The game was produced to raise awareness and interest in the 19th century opium trade through a satisfying game-playing experience. It was also intended that the game would engage an audience not typically within that which normally engages with the Wellcome Collection.

In order to assess the extent to which “High Tea” has met these aims the Wellcome Collection conducted an online questionnaire, a series of telephone interviews and a focus group. Opinion Leader was commissioned to analyse the results of this research.

The game was rated highly by survey respondents, and qualitative interview participants noted that specific aspects of the gameplay such as its simplicity and historical theme made it particularly satisfying. Participants also described how the game had facilitated an understanding of the historical theme by allowing the player to assume the role of a 19th century smuggler. The game sparked an interest among the survey respondents, most of whom said they were likely to do further research on the topic.

The findings also suggested that the game did indeed engage an audience that is not typical of the Wellcome Collection. Although the vast majority of respondents were male, most were also less than 24 years old (64%) and 32% were between the ages of 16-19. The game appeared to have been particularly successful in reaching those who visit gaming websites as the majority found the game through this route.

1 Introduction

1.1 Background

The Wellcome Collection curated the “High Society” exhibition from November 2010 until February 2011. The exhibition explored the history and culture of recreational drug use, displaying a combination of historical artefacts and contemporary artwork. In connection with the exhibition the Wellcome Trust designed an online game ““High Tea”” which illustrated the 19th century trade of opium and tea between the British and Chinese which led to the Opium Wars. In this game the player takes on the role of a smuggler selling opium to China and with the silver raised from this the player then buys tea and sells it to the British to satisfy their thirst for the drink. The game is set over a series of increasingly difficult levels, with higher targets to hit in each level as well as the addition of further complications such as being offered bribes and having to maintain the trading ships.

There were three interrelated aims in the production of the game. The first was to raise awareness of, and stimulate interest in, the Opium Wars and the activities involved. The second aim was to do this through a high quality game that offered a satisfying playing experience. The final aim was to engage an audience who were not usually within the Wellcome Trust’s audience, both to the exhibitions and the website. This would include for example, those from a younger demographic.

To explore the general response to the online game and to investigate how, and to what extent, the game met its aims, research was carried out with 1,132 participants who had played the game.

1.2 Objectives

Although the production of the game had three clear objectives, these were broadened for this research in order to capture a wider range of more detailed views and opinions about the game.

The objectives of this report were:

- To explore players opinions of “High Tea”, including aesthetic and gameplay aspects
- To understand if participants learnt anything from playing the game, and what this was
- To investigate the link between “High Tea” and increased awareness of the Wellcome Trust, the Wellcome Collection, and their educational resources and activities.

1.3 Method

The research consisted of both quantitative and qualitative research.

- An online survey of 11 questions was deployed as an open link during and at the end of the game. The survey was live for the first few weeks that the game was available and received 1,123 complete responses. Demographic information on the respondents can be found in appendix i.

- In-depth telephone interviews of 10-15 minutes were conducted with seven respondents who had indicated at the end of the survey that they were interested in taking part in a further consultation. Interviewees were based in England, Scotland, Canada, USA and Brazil. Demographic information on these participants can be found in appendix ii.
- A mini focus group was conducted in London with three participants who had indicated at the end of the survey that they were interested in taking part in a further consultation.

1.4 Analysis

Notes were taken from the focus group and the in-depth interviews were recorded and transcribed. The data was then examined against the research objectives and sorted according to theme with relevant quotations, reflective of the views expressed, being drawn out and noted down. An analysis matrix was then developed, based on the project objectives and encompassing the range of views expressed. This matrix lead to an overall account of the range of views evident within each theme.

The results for the online survey were analysed and tables were drawn up allowing comparison between and across questions and against different demographic criteria. Key themes were again pulled out, and statistical significance analysed.

Following completion of both the qualitative and quantitative stages of analysis, the two sets of findings were brought together and reviewed. Themes where the qualitative and quantitative findings support each other were explored along with further investigation of areas where contradictions within the data occurred.

2 Main findings

The findings from analysis of the quantitative data and qualitative data are presented according to the broader objectives outlined in the previous section. The term 'Respondents' is used to refer to those who answered the online quantitative survey whilst 'participant' is used to refer to those who took part in the qualitative interviews.

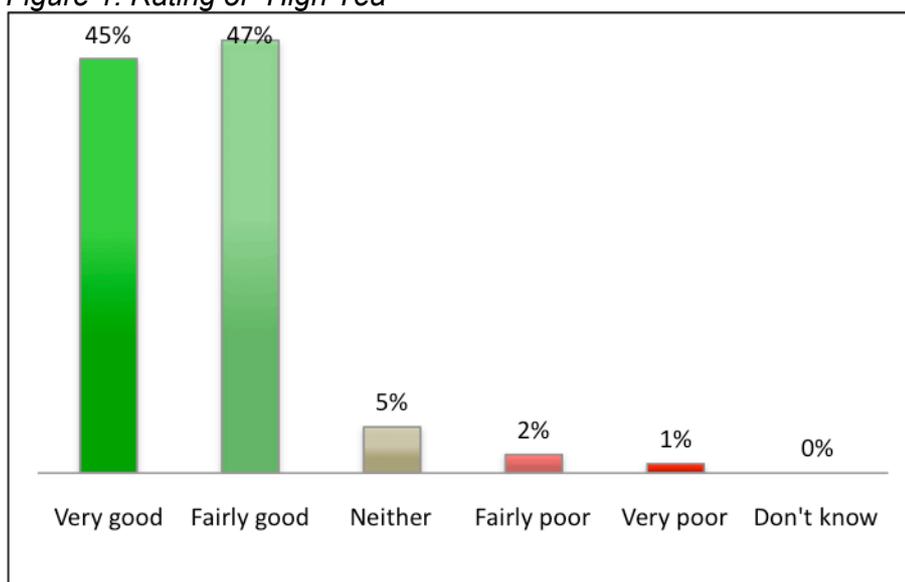
Demographics of those involved in the research

The majority of the 1,123 survey respondents were men (88%) and less than 24 years of age (64%), with 32% being 16-19 years old. The majority of respondents were living in the USA (27%) or UK (11%). For a full breakdown of demographics see appendix i. The demographic information for the seven qualitative participants can be found in appendix ii.

2.1 Players' opinions of "High Tea"

Overall "High Tea" was rated positively by respondents. Most rated it as fairly (47%) or very good (45%) with very few rating it as fairly (2%) or very poor (1%) (see Figure 1).

Figure 1: Rating of "High Tea"



The qualitative interviews helped to give insight into what people liked about the game. The participants' positive responses could be grouped into five themes:

- That the game was easy to pick up
- An appreciation of the historical theme
- The compelling gameplay
- The game length
- The graphics

(i) Easy to pick-up

The game was reported as being easy to pick-up. Participants noted that the instructions were clear and that the objectives were straightforward.

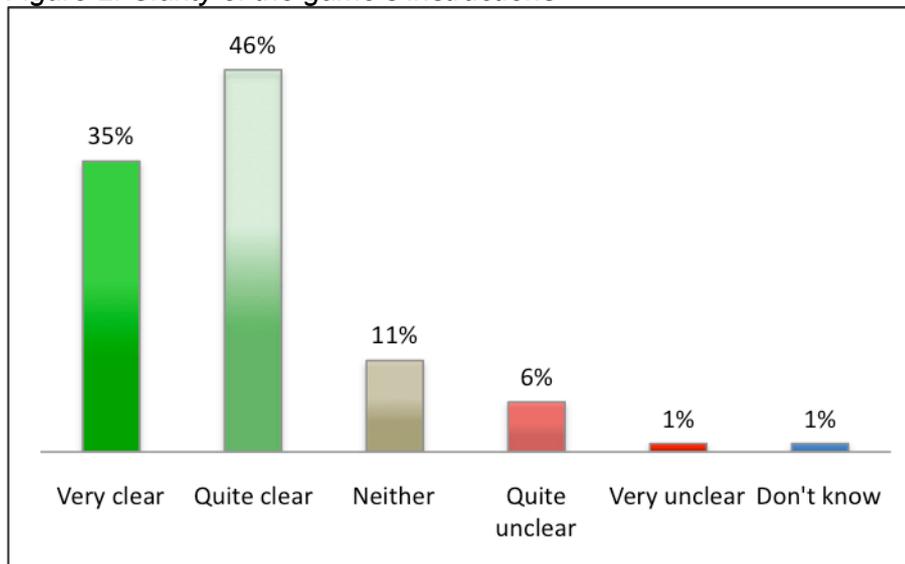


“Buy opium, sell opium, buy tea, it was kind of straightforward in that regard I thought.”
(Female, USA)

“The general concept, I mean you had to get into it, but it wasn’t hard to get into.” (Male, UK)

In agreement with these comments the survey findings showed that most respondents found the instructions to be quite clear (46%) or very clear (35%) (see Figure 2)

Figure 2: Clarity of the game’s instructions



Analysis showed that respondents’ rating of the game was related to how clear they felt the instructions were. The proportion rating the game as ‘good’ was 96% among those who felt that the instructions were clear, however, this proportion decreases to 68% among those who thought the instructions were unclear. Furthermore, a significantly higher proportion of those rating the instructions as unclear also rated the game as poor (16%) compared with those who found the instructions clear (2%)¹⁴.

¹⁴ In the analysis ‘clear’ is equal to responses rating the instruction as ‘quite clear’ and ‘very clear’. ‘Good’ is equal to responses rating the game as ‘quite good’ and ‘very good’. Likewise, ‘unclear’ is equal to ‘quite unclear’ and ‘very unclear’. ‘Poor’ is equal to ‘quite poor’ and ‘very poor’.

(ii) Historic Theme

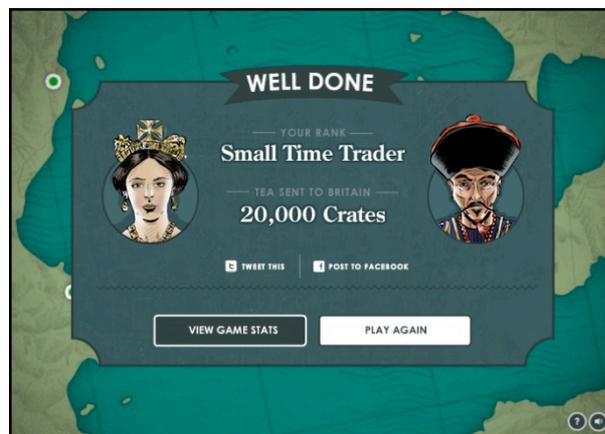
The historic nature of the story behind the game was described by participants as interesting and unusual amongst computer games.

“It has the historical context that you are actually doing something that happened in real life.” (Male, UK)

“I thought it was a really nice sort of entrance into you know that little bit of history, but you really came up with a successful game which I think captured attention.” (Female, USA)

(iii) Compelling Gameplay

The gameplay itself was cited as being satisfying. In particular, participants liked that the difficulty was high enough to make it compelling. Participants also noted that the strategic element was simple and streamlined.



“I like it because it is strategic...it is challenging...I just think it is a really cool game, it makes it worth playing.” (Female, USA)

“I’ve played a couple of trading games similar to it before but I don’t know this one was a little more simplistic in some ways and it was a lot more fun because it was more streamlined.” (Male, Canada)

(iv) Game Length

The length of the game was described as being neither too short nor too long.

“It’s not so long that people get bored but it’s not so short that you just show up, click a couple of times and walk away.” (Male, USA)

(v) Graphics

Participants liked the graphics and felt that they were appropriate to the game.



“The graphics were very well, they fit the purpose of the game, it was simple, it was easy to understand

I have nothing to complain about it...I liked the art, it was very neat actually.” (Male, Brazil)

“It was a simple type of game, like a trading game, but it was done very neatly I would say the graphics suited it very well.” (Male, UK)

Improvements

Participants thought that more details could be added to “High Tea” with regards to the gameplay e.g. more levels, region and historical information. It was also mentioned, however, that more complexity could detract from the game’s message.

“Maybe more detail or maybe have different regions or different levels, but that would alter the historical aspect of the game. Something where there would be more obstacles or something, something more interesting.” (Female, USA)

“A bit more information about it because you have like a brief image of the Queen’s face and some other kings and queens, but you didn’t really get much information on it and if that’s what you were wanting to do then maybe then you should have put a tad more information on it.” (Male, UK)

“If you were to change something I think it would add perhaps some necessary complexity to the game, but it could lose a bit of the message.” (Male, Brazil)

“You might have even been able to get more out of it from an educational perspective I think, which I really mean that as a compliment. But I think you even had a bit more room to sneak a bit more learning in there if you wanted to.” (Female, USA)

2.2 Participants' learning from the game

Initial awareness of the opium trade and Opium Wars

Before playing the game a large number of the survey respondents had either a high (45%) or medium (32%) level of awareness of the opium trade in the 19th century (see Figure 3).¹⁵ The findings also indicated that awareness of the Opium Wars was lower than awareness of the opium trade. Fewer respondents rated their awareness of the Opium Wars as high (36%) and more rated it as low (28%) (see Figure 4).

Figure 3: Initial awareness of the Opium Trade prior to playing "High Tea"

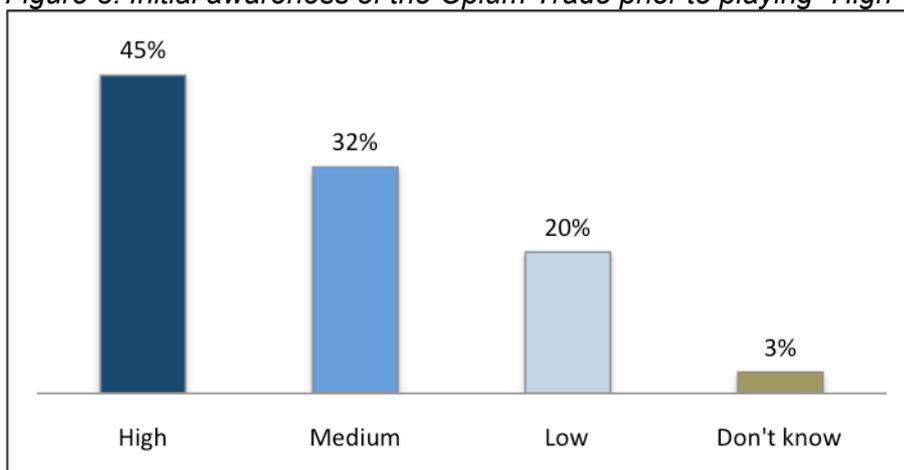
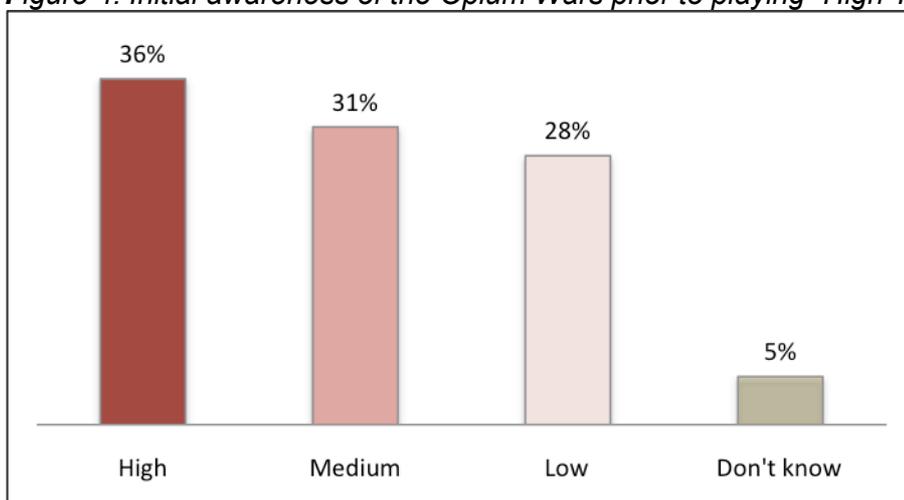


Figure 4: Initial awareness of the Opium Wars prior to playing "High Tea"



¹⁵ 'Medium' denotes those who had heard of the trade and 'high' those who knew exactly what it was. 'Low' denotes those who had never heard of it.

Analysis indicated that older age groups had a higher level of awareness of the themes than younger age groups. A significantly higher proportion of respondents aged 35-44 (57%) had a high awareness of the opium trade compared to the overall sample average (45%). In addition, a significantly lower proportion of participants aged 16 -19 (31%) had a high awareness of the Opium Wars compared to the overall sample average (36%).

In the qualitative interviews participants described the extent of their knowledge about the opium trade and the Opium Wars. They cited three ways in which it was limited: being either due to a lack of interest, lack of understanding or because they had never heard of it.

“I had heard of it but didn’t really take much interest of it.” (Male, UK)

“I knew nothing at all actually about the opium smuggling and the tea trade in that area, so for me that was really interesting.” (Female, USA)

“I suppose I had heard the phrase ‘Opium Wars’, but I had never really understood what it was about.” (Female, Scotland)

“High Tea” was felt to have educational value

In the survey, respondents were asked if they wanted to give any other comments. The largest proportion of responses to this question (26%) related to the entertainment value of the game. The second largest proportion, however, related to the educational value of the game (9%) including comments such as:

“Wonderfully designed game that really captures the problems that are associated with the opium trade. Thank you for the experience!” (Male, 16-19 years, USA)

“Very good game about a troubled and questionable past in both Britain and China. Many people don’t know about the Opium Wars, so it is very nice to have some educational games out there. Also, to play as a British salesman is kinda ironic, but suitable.” (Male, 20-24, USA)

When discussing what they had learnt from the game, participants in the qualitative interviews cited five themes:

<p>The British empire was involved in trading drugs in China <i>“I found it very interesting to find that the British government was sponsoring drug running in China!” (Female, Scotland)</i></p>
<p>Extent of the English involvement in the Opium Trade <i>“I didn’t realise the English were so involved in the Opium Trade and how it was related to tea and stuff.” (Female, UK)</i></p>
<p>Opium and silver being used as a currency for buying tea <i>“How opium became like a currency for tea really, or for the exchange of silver.” (Male, UK)</i></p>
<p>Importance of tea for the British economy <i>“I had no idea that the need for tea was bankrupting Britain so badly in that era.” (Female, USA)</i></p>
<p>The power of the British empire over China <i>“How really the empire kind of wielded the big stick over people, even as big and powerful as China.” (Male, UK)</i></p>

Participants also described how the gameplay was effective in helping them to engage with the topic. Engagement was described as taking place in two different ways, through a specific focus on a historical time period, and though the use of role play.

The specific focus on the opium trade in the 19th century had the effect of drawing their attention to a part of history that they may not have properly engaged with before.

“So many things happen in history and when you learn it altogether you do not have time to concentrate or focus on some specific parts unless you studied that specifically and me being in Brazil we really didn’t focus on that, we probably studied it as a footnote or something that happened remotely in a remote time.” (Male, Brazil)

The objectives of the game also facilitated the player into empathising with the traders of the 19th century. By putting themselves in the shoes of the traders they were able to better understand how money motivated a person to become involved in something that was morally dubious. Participants cited this both spontaneously and in response to a question about whether assuming a morally dubious role made them uncomfortable.

“I think it really is cool, sort of to understand the objective and you just understand all of these things all of once, that is really hard to teach people in a class room.” (Female, USA)

“I could experience that ambiguous morality, I tried to put myself in the shoes of the British trader...I think the way the colonisation happened they didn’t really think about the people, they just thought about the money...when I played the game, because I had to go off making money and that is the way that I make money. The way the game was made you do not really think at all about the people in China or the people in India, you just trade and try to make the most of it.” (Male, Brazil)

“You get quite quickly caught up in the need to meet the deadline on the tea shipments, which is a good point worth making that it is not necessarily that all the people involved are desperately wicked they had just allowed themselves to come under pressure and forgot what they were doing.” (Female, Scotland)

It is also of relevance that where discussed participants were not perturbed by taking on the role of a morally dubious character, citing it as no worse and in some cases better than the roles assumed in more violent games they play.

“In other games like First Person Shooter you’re killing people.” (Male, UK)

“I mean compared to some of the games that are popular you know it’s perhaps morally dubious but if you’ll pardon the vulgarity it’s not like shooting someone in the head. So it kind of pales in comparison to some of the stuff that people are exposed to.” (Female, USA)

The theme of “High Tea” was felt to be relevant

In the qualitative interviews participants were asked if they could draw any parallels between the game and the affairs of today’s world. There was an overarching feeling that history repeats itself and that countries have been shaped by colonisation.

“History always repeats itself; there is a commercial imperialism now instead of actual imperialism in this country.” (Male, Canada)

“If things had been done differently I think things now would be different because history is a process. I think the opium trade or other types of conditions in other parts of the world shape how the parts of the world are right now.” (Male, Brazil)

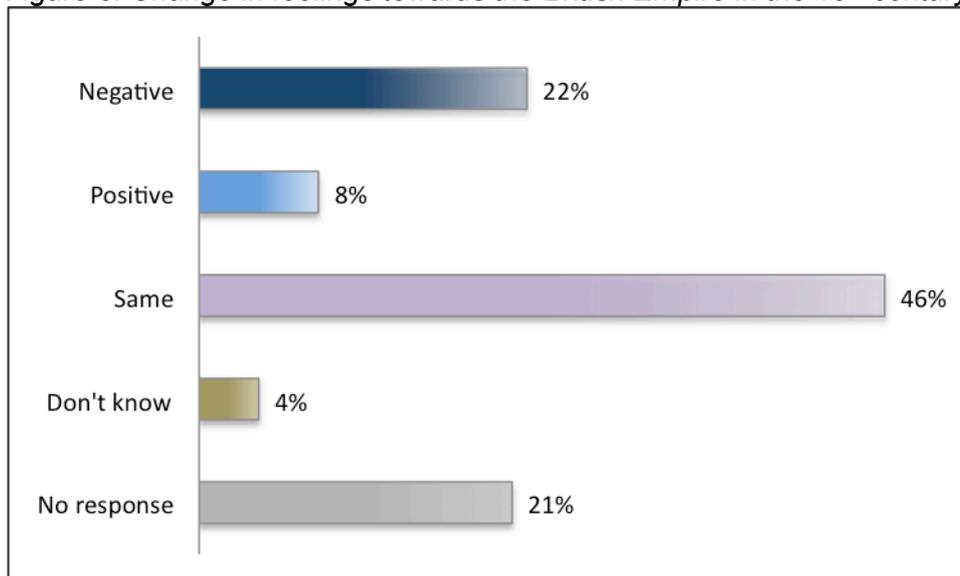
More specific aspects that participants cited included the following:

<p>Politicians are pressured to do things without regard for what is right and wrong <i>"Feeling very pressured to do something without ever stepping back to think about the rights and wrongs...I suppose any politician does this all the time!" (Female, Scotland)</i></p>
<p>Stock exchange <i>"The stock exchange was the engine of the game where you had to buy it low and sell it high." (Male, UK)</i></p>
<p>Poppy trade in Afghanistan <i>"Afghanistan would be a point in case, the trade is still going on there even though there are allied forces trying to get rid of the Taliban" (Male, UK)</i></p>
<p>Exploitation of Chinese workers <i>"That happens today, with corporations, actually nowadays we kind of exploit the China workers for cheap products and we don't really think about them, we just want the products cheaper." (Male, Brazil)</i></p>
<p>The purchase of goods without regard for the consequences e.g. deforestation <i>From focus group (transcript not available)</i></p>

"High Tea" reinforced feelings about the British empire in the 19th century

Many respondents' feelings towards the British Empire in the 19th century were unchanged by having played the game (46%) with a smaller proportion feeling more negative (21%) (see Figure 5).

Figure 5: Change in feelings towards the British Empire in the 19th century



When asked how their feelings towards the empire were affected by "High Tea" certain participants described how the game had reinforced or extended aspects that they were already aware of.

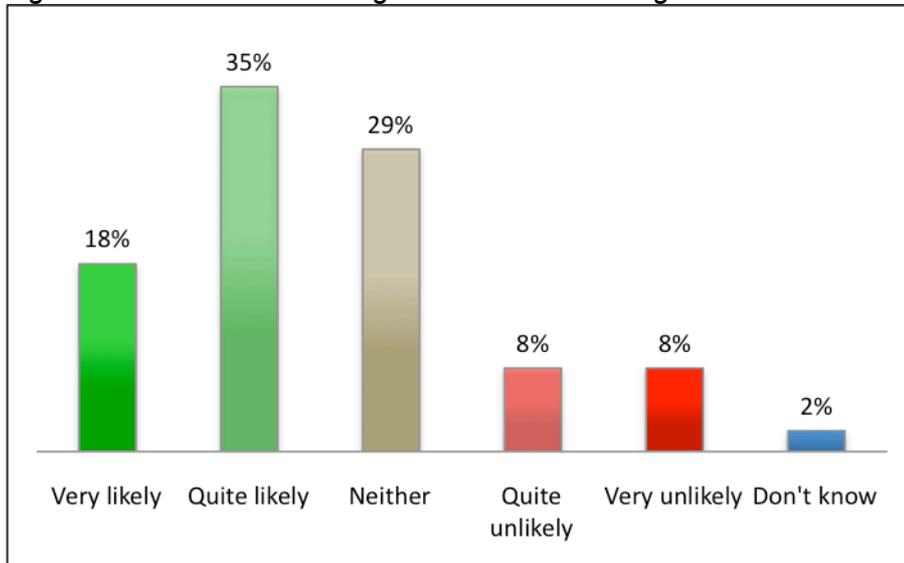
"I don't think it changed, maybe it reinforced some things, I definitely don't think less of Britain because of playing this game!" (Female, USA)

"One had a vague sort of feeling at the back of one's mind that Britain's colonial history is nothing much to be proud of, but I was a little bit shocked." (Female, Scotland)

“High Tea” moderately stimulated a further interest in the themes

Most of the survey respondents were quite or very likely to find out more about the opium trade and the Opium Wars (53%) (Figure 6)

Figure 6: Likelihood of finding out more about the game’s themes



Analysis showed that awareness of the opium trade and Opium Wars was related to the likelihood of finding out more about these historical events. The proportion of those who said they were likely to find out more among those with a medium level of awareness of the opium trade (65%) was significantly higher than the proportion who were likely to find out more among those with a high (50%) or low (46%) level of awareness of the trade. A similar pattern of responses was observed for the Opium Wars. This finding could be interpreted as showing that to be prompted into doing more research into a topic by the game, an individual needs to have a certain level of base knowledge, but that if they already have a high level of knowledge they do not feel the need to find out further information.

Participants in the qualitative interviews described the nature and extent of any further research they had done. Where further research had been done, participants cited a visit to Wikipedia and the Wellcome Collection website. It was also noted that although some participants’ interest had been stimulated by the game they did not have time to find out much more.

“I read some more on your own website, but I didn’t really go much further.” (Female, Scotland)

“I have to say it was just casual reading, not because I wasn’t interested but just because of the lack of time, but I should tell you that I still go back once in a while to play “High Tea”.” (Male, UK)

Where awareness of the Opium Wars and trade was already high, participants described how the game had encouraged them to find out about the Wellcome Collection.

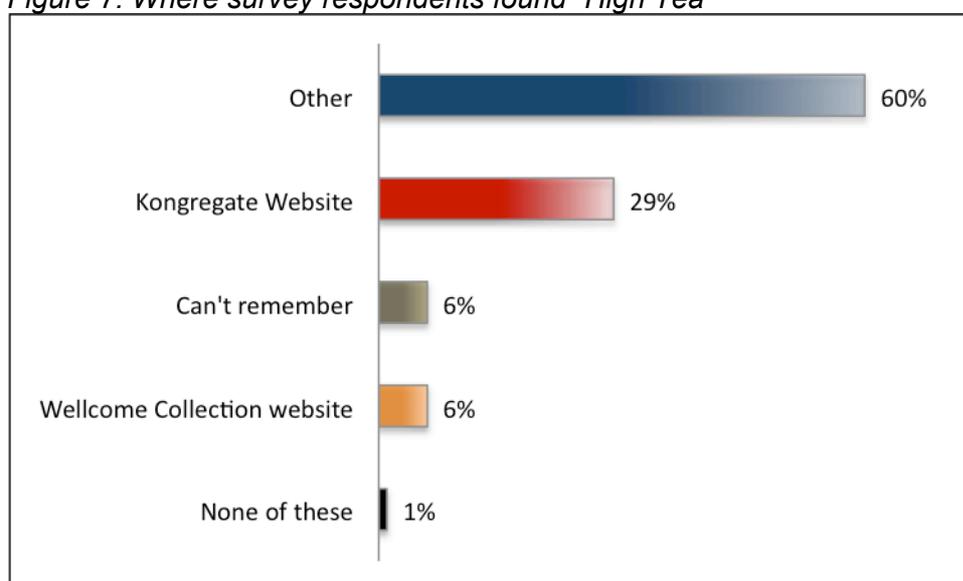
“I did (already know much) actually...It was great, I just loved the feel of it...I knew quite a lot anyway but I ended up researching who you guys were.” (Male, Canadian)

2.3 The link between “High Tea” and increased awareness of the Wellcome Trust and the Wellcome Collection, their educational resources and activities

Most respondents found “High Tea” through sources other than the Wellcome Collection website

When asked where they found “High Tea” 29% of respondents said they found it on the Kongregate gaming website (Figure 7). Respondents could also make an open-ended comment about where they found “High Tea”. Most of these responses referred to a gaming website (97%) with a much smaller proportion finding the game through twitter (2%) and facebook (<1%)³.

Figure 7: Where survey respondents found “High Tea”⁴



When participants in the qualitative interviews were asked how they found “High Tea” they cited three main routes. Firstly, participants just “stumbled upon the game”. The second route was through a mailing list. The third route was through word of mouth.

“I was on the hunt for games, just bored one day.” (Male, Canada)

“It must have been a link off a mailing list. Would it have been a Museum Computer Group list.” (Female, Edinburgh, UK)

Factors cited as encouraging participants to initially try the game was if it had been ‘featured’ on the website and if it had been rated highly by previous players.

“I think it was just on the home page (of Armor Games website) and it was one of the new games and the score was pretty high for it, so I thought it was a pretty decent game. That is basically why, it was just the rating and because it was on the front page.” (Female, USA)

³ All those who responded with ‘other’ completed the Q4 open-ended response specifying where they found “High Tea”. This open-ended response was also completed, however, by some of those who had selected a response from the list available for Q4.

⁴ These do not add up to 100% due to rounding.

Awareness of the Wellcome Collection

Respondents in the quantitative survey were not asked about their awareness of the Wellcome Collection or the Wellcome Trust prior to playing “High Tea”. Participants in the qualitative stage, however, did describe how, if at all the game had increased their awareness of the Wellcome collections and the Wellcome Trust by prompting them to visit the Wellcome Collection website. The experiences of these website visits varied with participants describing the website as bland and others describing it as well-laid out and attractive.

“It was quite informative but it was a bit bland. There needed to be more sort of interactions with the user perhaps telling you where to go.” (Male, England, UK)

“And there are some exhibitions but they are all in Britain so I didn’t really go there. I did visit the site...everything is neat and beautiful, it is a pretty good site...I liked it. I did browse through it and it was well organise.” (Male, Brazil)

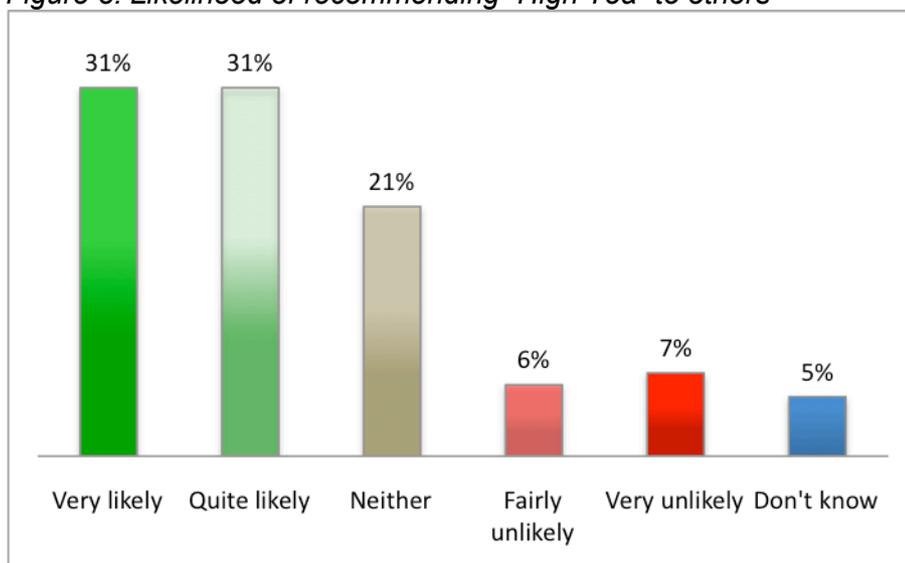
Other participants said that they did not visit the Wellcome Collection website but they could vaguely recall a link following the game.

“I think the very first time I played it there was maybe a link or something. Or an automatic sort of thing. But I didn’t look too hard at it.” (Female, USA)

Most respondents would recommend “High Tea” to others

Most survey respondents said they were very or quite likely to recommend “High Tea” to other people (62%). Of the remaining responses 21% were neutral about whether they would recommend the game with a much smaller proportion saying they would be fairly or very unlikely (13%) (Figure 8).

Figure 8: Likelihood of recommending “High Tea” to others



Analysis showed that the proportion of female respondents who said they were very or quite likely (76%) was significantly greater than males (62%).

In the qualitative interviews there was a mixed response to recommending the game to others. Some participants had not recommended the game with one of these respondents explaining that they were reluctant to talk to others about computer game playing in general.

“I don’t know, I probably didn’t, I don’t generally chat to people about that kind of thing. They would think I was a waster.” (Female, Scotland)

Those who had recommended the game reported that they had received feedback saying how addictive the game was.

“In fact many of my friends told me they were very angry with me because they were now obsessed with winning this game and did nothing else for three hours, so I passed it onto many people.” (Female, USA)

3 Conclusions

The findings from the quantitative and qualitative research suggest that “High Tea” provided a satisfying game playing experience that engaged players with the historical theme and reached those who may not have previously been aware of the opium trade, the Opium Wars, the Wellcome Collection or the Wellcome Trust.

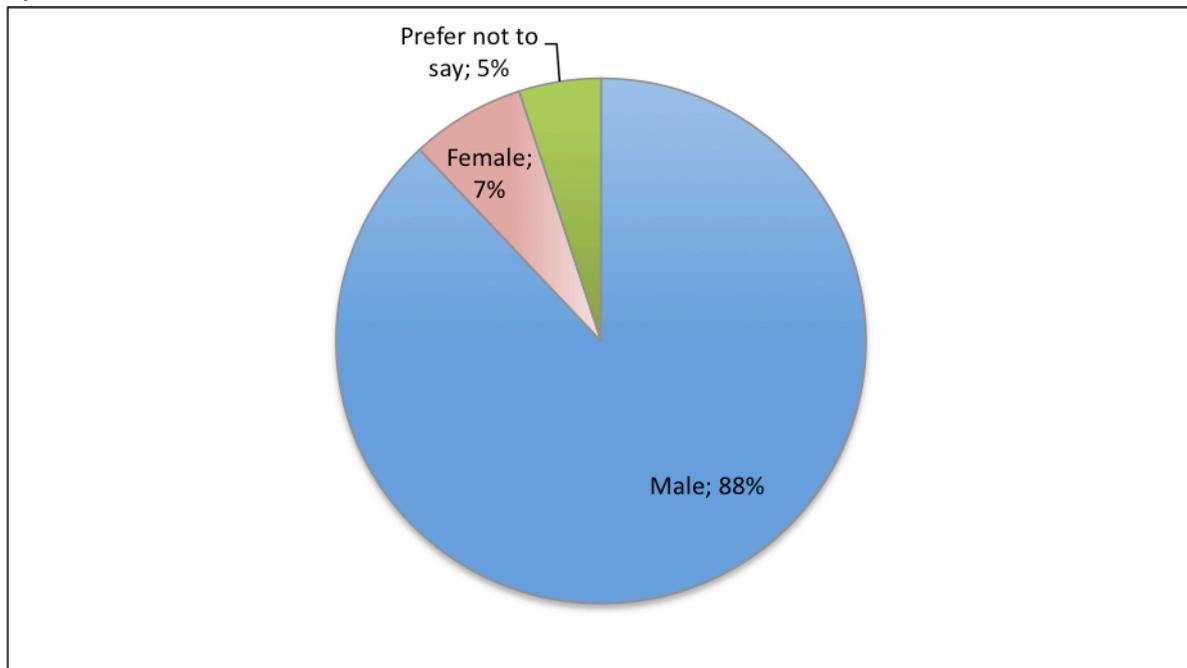
“High Tea” was cited as being particularly successful at providing a high-quality game playing experience that was an optimum length and for most people was easy to pick-up. The simplicity of the game was felt to be a positive aspect but also an area that could be improved by adding in more detail.

The game playing experience was cited as helping “High Tea” to portray it’s educational aspects. The game was cited as increasing player’s awareness of the themes and stimulating further interest. The player’s role as an 19th century trader was described as a positive way in which to facilitate an understanding of the motives behind a morally dubious trade and how this period of history resonates with the affairs of today’s world.

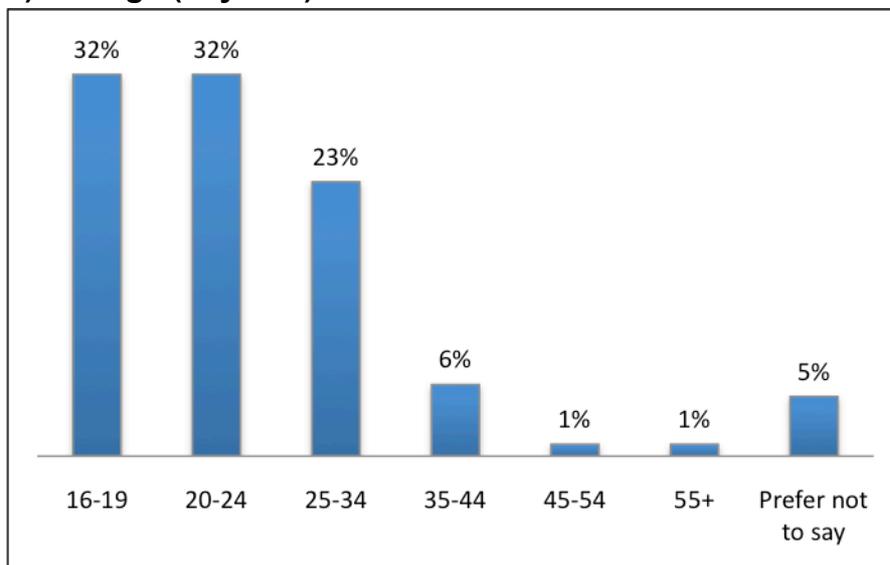
“High Tea” seemed to be successful in reaching a young audience given the demographic make-up of the survey respondents that visit gaming websites and was cited as encouraging players to find out more about the Wellcome Collection and the Wellcome Trust.

Appendix i: Demographic data of survey respondents

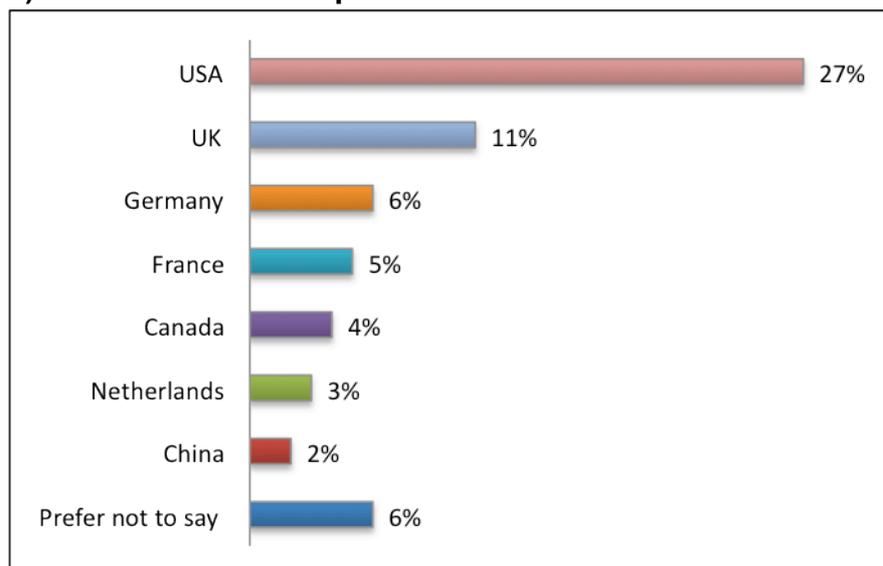
a) Gender



b) Age (in years)



c) Location of respondents



Other locations (2% and less than 2% of respondents)

Country	Proportion of respondents	Country	Proportion of respondents
France	5%	Poland	2%
Belgium	2%	Spain	2%
Brazil	2%	Italy	2%
Argentina	1%	Romania	1%
Australia	1%	Korea, South	1%
Austria	1%	Mexico	1%
Bulgaria	1%	Malaysia	1%
Czech Republic	1%	Norway	1%
Denmark	1%	Portugal	1%
Finland	1%	Russia	1%
Greece	1%	Singapore	1%
Hong Kong	1%	Sweden	1%
Hungary	1%	Lithuania	1%
India	1%	Switzerland	1%
Angola	<1%	Turkey	1%
Barbados	<1%	Japan	1%
Belarus	<1%	Malta	<1%
Bosnia-Herzegovina	<1%	Kazakhstan	<1%
Botswana	<1%	Latvia	<1%
Chile	<1%	Macedonia	<1%
Colombia	<1%	New Zealand	<1%
Croatia	<1%	Pakistan	<1%
Ecuador	<1%	Niger	<1%
Egypt	<1%	Philippines	<1%
Guinea-Bissau	<1%	Puerto Rico	<1%
Iceland	<1%	Serbia	<1%

Indonesia	<1%		Slovenia	<1%
Ukraine	<1%		Slovak Republic	<1%
Uruguay	<1%		South Africa	<1%
Venezuela	<1%		Thailand	<1%
Viet-Nam	<1%		Israel	<1%
Zimbabwe	<1%			

Appendix ii: Demographic data on the interview participants

Interview ID	Gender	Location
1	Female	Scotland, UK
2	Male	London, UK
3	Female	USA
4	Female	USA
5	Male	Canadian
6	Male	Norwich, UK
7	Male	Brazil
Focus group	Not noted	London, UK (the three participants nationalities included New Zealand, Irish, and British)

Appendix iii: Online survey questionnaire

High Tea

Welcome to a short survey about the High Tea game you have just played! The survey should take no longer than 5 minutes to complete and you will have the chance to enter into a prize draw to win a £100 Amazon voucher. Please note you must be 16 or over to take part, and we can only accept one entry per person. Please be assured that all of your answers are strictly confidential and responses will be reported in the aggregate only.

Q1 Please can you confirm that you are 16 years of age or older?

- Yes, I am 16 or older
- No, I am under 16

Rating

Q2 Overall, how would you rate High Tea?

- Very good
- Fairly good
- Neither good nor poor
- Fairly poor
- Very poor
- Don't know

Instructions

Q3 How clear or unclear did you find the instructions for playing the game?

- Very clear
- Quite clear
- Neither clear nor unclear
- Quite unclear
- Very unclear
- Don't know

Finding the game

Q4 Where did you find High Tea?

Please tick all that apply

- Wellcome Collection website
- Kongregate website
- Can't remember
- Other (please specify) _____

Recommendation

Q5 How likely or unlikely are you to recommend the game to a friend?

- Very likely

- Quite likely
- Neither likely nor unlikely
- Quite unlikely
- Very unlikely
- Don't know

Opium in the 19th century

Q6 Before playing this game, were you aware of the:

Please select one option per row

	Yes, I was aware but did not know exactly what it was	Yes, I was aware and knew what it was	No, I was not aware	Don't know
Trade in opium in the 19th century	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opium Wars in the 19th century	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Finding out more

Q7 After playing this game, how likely or unlikely are you to find out more about the trade in opium, or the opium wars?

- Very likely
- Quite likely
- Neither likely nor unlikely
- Quite unlikely
- Very unlikely
- Don't know

British traders and the British Empire

Q8 Have your feelings about the 19th century British opium traders and the British Empire changed as a result of playing this game?

- I feel more negatively towards 19th century British opium traders and the British Empire
- I feel more positively towards 19th century British opium traders and the British Empire
- My feelings have not changed
- Don't know

Any other comments

Q9 If you have any other comments you would like to make about High Tea, please use the box below

About you

The following will help us to understand more about the respondents to our survey. If you do not want to answer any of these questions, please select 'Prefer not to say'.

Gender

Q10 Are you:

- Male
- Female
- Prefer not to say

Age

Q11 Which of the following age groups do you belong to?

- 16 - 19
- 20 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55+
- Prefer not to say

Current location

Q12 Please select your current location from the drop down list:

<input type="radio"/> Prefer not to say	<input type="radio"/> Germany,Federal R	<input type="radio"/> Norway	<input type="radio"/> Uganda
<input type="radio"/> Albania	<input type="radio"/> Ghana	<input type="radio"/> Oman	<input type="radio"/> Ukraine
<input type="radio"/> Algeria	<input type="radio"/> Greece	<input type="radio"/> Pakistan	<input type="radio"/> United Arab Emira
<input type="radio"/> Angola	<input type="radio"/> Grenada	<input type="radio"/> Palestine Occ Ter	<input type="radio"/> United Kingdom
<input type="radio"/> Antigua & Barbuda	<input type="radio"/> Guadeloupe	<input type="radio"/> Panama	<input type="radio"/> United States
<input type="radio"/> Argentina	<input type="radio"/> Guatemala	<input type="radio"/> Papua New Guinea	<input type="radio"/> Uruguay
<input type="radio"/> Armenia	<input type="radio"/> Guinea-Bissau	<input type="radio"/> Paraguay	<input type="radio"/> Uzbekistan
<input type="radio"/> Australia	<input type="radio"/> Guyana	<input type="radio"/> Peru	<input type="radio"/> Vanuatu
<input type="radio"/> Austria	<input type="radio"/> Haiti	<input type="radio"/> Philippines	<input type="radio"/> Venezuela
<input type="radio"/> Azerbaijan	<input type="radio"/> Honduras	<input type="radio"/> Poland	<input type="radio"/> Viet-Nam
<input type="radio"/> Bangladesh	<input type="radio"/> Hong Kong	<input type="radio"/> Portugal	<input type="radio"/> Yemen
<input type="radio"/> Barbados	<input type="radio"/> Hungary	<input type="radio"/> Puerto Rico	<input type="radio"/> Zambia
<input type="radio"/> Belarus	<input type="radio"/> Iceland	<input type="radio"/> Reunion	<input type="radio"/> Zanzibar
<input type="radio"/> Belgium	<input type="radio"/> India	<input type="radio"/> Romania	<input type="radio"/> Zimbabwe
<input type="radio"/> Benin	<input type="radio"/> Indonesia	<input type="radio"/> Russia	
<input type="radio"/> Bolivia	<input type="radio"/> Iran	<input type="radio"/> Rwanda	
<input type="radio"/> Bosnia-Herzegovina	<input type="radio"/> Iraq	<input type="radio"/> Samoa	
<input type="radio"/> Botswana	<input type="radio"/> Irish Republic	<input type="radio"/> Sao Tome	
<input type="radio"/> Brazil	<input type="radio"/> Israel	<input type="radio"/> Saudi Arabia	
<input type="radio"/> Bulgaria	<input type="radio"/> Italy	<input type="radio"/> Senegal	
<input type="radio"/> Burkina Faso	<input type="radio"/> Jamaica	<input type="radio"/> Serbia	
<input type="radio"/> Burundi	<input type="radio"/> Japan	<input type="radio"/> Seychelles	
<input type="radio"/> Cambodia(Kampuche)	<input type="radio"/> Jordan	<input type="radio"/> Sierra Leone	
<input type="radio"/> Cameroon	<input type="radio"/> Kazakhstan	<input type="radio"/> Singapore	
<input type="radio"/> Canada	<input type="radio"/> Korea, South	<input type="radio"/> Slovak Republic	
<input type="radio"/> Chad	<input type="radio"/> Kuwait	<input type="radio"/> Slovenia	
<input type="radio"/> Burkina Faso	<input type="radio"/> Kyrgyzstan	<input type="radio"/> South Africa	
<input type="radio"/> China	<input type="radio"/> Laos	<input type="radio"/> Spain	
<input type="radio"/> Colombia	<input type="radio"/> Latvia	<input type="radio"/> Sri Lanka	
<input type="radio"/> Congo (Republic Of/Brazzaville)	<input type="radio"/> Lebanon	<input type="radio"/> St. Kitts & Nevis	
<input type="radio"/> Congo Dem. Repub.	<input type="radio"/> Lesotho	<input type="radio"/> St. Lucia	
<input type="radio"/> Costa Rica	<input type="radio"/> Liberia	<input type="radio"/> Sudan	
<input type="radio"/> Cote D'Ivoire	<input type="radio"/> Libya	<input type="radio"/> Surinam	
<input type="radio"/> Croatia	<input type="radio"/> Lithuania	<input type="radio"/> Swaziland	
<input type="radio"/> Cuba	<input type="radio"/> Luxembourg	<input type="radio"/> Sweden	
<input type="radio"/> Cyprus	<input type="radio"/> Macedonia	<input type="radio"/> Switzerland	
<input type="radio"/> Czech Republic	<input type="radio"/> Madagascar	<input type="radio"/> Syria	
<input type="radio"/> Denmark	<input type="radio"/> Malawi	<input type="radio"/> Taiwan	
<input type="radio"/> Dominica	<input type="radio"/> Malaysia	<input type="radio"/> Tajikistan	

<input type="radio"/> Dominican Republic	<input type="radio"/> Maldives	<input type="radio"/> Tanzania	
<input type="radio"/> Ecuador	<input type="radio"/> Mali	<input type="radio"/> Thailand	
<input type="radio"/> Egypt	<input type="radio"/> Monaco	<input type="radio"/> Timor-Leste	
<input type="radio"/> El Salvador	<input type="radio"/> Mongolia	<input type="radio"/> Togo	
<input type="radio"/> Eritrea	<input type="radio"/> Montserrat	<input type="radio"/> Tonga	
<input type="radio"/> Estonia	<input type="radio"/> Morocco	<input type="radio"/> Trinidad & Tobago	
<input type="radio"/> Ethiopia	<input type="radio"/> Mozambique	<input type="radio"/> Tunisia	
<input type="radio"/> Fiji	<input type="radio"/> Myanmar	<input type="radio"/> Turkey	
<input type="radio"/> Finland	<input type="radio"/> Namibia	<input type="radio"/> Turkmenistan	
<input type="radio"/> France	<input type="radio"/> Nepal		
<input type="radio"/> French Guiana	<input type="radio"/> Netherlands		
<input type="radio"/> French Polynesia	<input type="radio"/> New Caledonia		
<input type="radio"/> Gabon			
<input type="radio"/> Gambia			
<input type="radio"/> Georgia			

Appendix iv: Discussion guide for interviews

Introduction

The Wellcome Trust is a global charitable foundation dedicated to achieving extraordinary improvements in human and animal health. It supports the brightest minds in biomedical research and the medical humanities. The Trust's breadth of support includes public engagement, education and the application of research to improve health. It is independent of both political and commercial interests. Wellcome Collection is a free visitor destination for the incurably curious. Located at 183 Euston Road, London, it explores the connections between medicine, life and art in the past, present and future.

In January 2011 the Wellcome Collection launched 'High Tea', an online game based on the Opium Wars, which were featured in its 'High Society' exhibition (which ran from November 2010 to February 2011).

In order for us to understand how people interact with 'High Tea', the Wellcome Trust's Evaluation Team ran an online survey to accompany the game.

To gain further insight into **what people learnt from the game and how it made them feel**, we are now holding in-depth interviews. During this interview, we will discuss a number of themes around 'High Tea',

- **including overall game play,**
- **what you have learnt from the game**
- **and how the game made you feel.**

Please be assured that the discussion will be anonymised and responses will be reported in the aggregate only. The interview should take around 10 minutes and will be digitally recorded (to help us capture your views – views reported in the aggregate and anonymously).

QUESTIONS:

Theme 1: Introduction/general questions

Can you tell us more about yourself name/where live/study/work/interests etc?

Are you interested in history/medicine?

Do you play computer games regularly?

What types of games do you usually play?

Can you list which other games you usually play?

Can you remember how you found out about the High Tea game?

Theme 2: Playing High Tea game - opinions on the game itself.

Did you enjoy the game?

What made you play High Tea game?

What did you like about High Tea game?

What didn't you like about High Tea game?

- Was it paced too fast/too slow?
- Did you successfully complete the game?
- Did you play the game more than once?
- Did you have any problems in playing it?
- Did you recommend it to a friend?

- Did you find the trading mechanism easy to get the hang of?
- Did you find the 'strategy' element of the game interesting?

What do you think about the quality/instructions/music/ etc?

How is the game/different similar to other games you have played?

Is there anything that could have been done better?

Theme 3: Learning from High Tea game

What information did you pick up from playing the game?

Were you aware of the opium trade and the opium wars before playing this game?

What did you know about the opium trade and opium wars before playing the game?

By playing the game, did you learn: When were the opium wars?/Who were they between?/Why did they start?/Why did British traders want to sell opium to the Chinese?

What else did you learn from playing High Tea?

Do you feel you have a better understanding of the opium trade having played the game?

Did you go on to find out any more about the history of Britain and China after playing the game?

Do you think there are any parallels between 'High Tea' and world affairs today?

Theme 4: Feelings about High Tea game

The game puts you in the position of doing something rather morally dubious for money, so we'd like to know how this make you feel, or how you interpreted our own position on this.

How did you feel about Britain's colonial activities before playing the game?

How did you feel about Britain's colonial activities after playing the game?

What was your general feeling about playing as a British opium trader?

Did it make you uncomfortable? Why/why not?

Theme 5: Wellcome Collection

Were you aware of Wellcome Collection before playing the game?

Were you aware of Wellcome Collection website before playing the game?

Did you know anything about the Wellcome Trust before playing the game?

Did you go on to look at the Wellcome Collection site? Why/ Why not

What do you think about Wellcome Collection having played the game?

Have you ever contacted Wellcome Collection or Wellcome Trust?

Theme 6: final comments

Is there anything else you would like share with us about High Tea

Appendix v: Discussion guide for focus group

- Thank participants for attending.
- **Introduce self.** My name is Briony Rayfield/Halina, and I work for the Strategic Planning and Policy Unit. This Unit works independently from the funding department and we look at the policy overview of the Trust. Therefore we get involved in running consultations and focus groups such as this one. We are here to gather all opinions.
- **Introduce Colleagues:** Halina/Briony (from the unit and taking notes)
- **Aim of the group:** Get your feedback on what you like/dislike about the game
- **Length of group:** Around hour and a half – certainly not longer
- **Rules of the discussion:** all opinions are valid, no right or wrong answers. Only one person speaking at a time. Encourage debate and discussion where there are differences of opinion, respect for everyone's point of view.
- **Recording:** - we are recording the group (so we don't have to write everything down!) not attributed
- **Confidentiality:** reassure responses are anonymous and that information about individuals will not be passed on to anyone. Explain we abide by MRS code of conduct.
- **Housekeeping:** toilets, fire exit, refreshments, mobile phones off.

QUESTIONS:

Theme 1: Introduction/general questions (10 min)

- Can you tell us more about yourself name/where live/study/work/interests etc?
- What is your interest in history/medicine/science?
- How often do you play computer games?
- What types of games do you usually play?
- Can you list which other games you usually play?
- What are your favourite games?
- Why do you play?
- Can you remember **how you found out** about the High Tea game?

Theme 2: Playing High Tea game - opinions on the game itself. (10-15 min)

- What **made you play** High Tea game?/Why did you play?Did **you enjoy the game**?
- What did you **like** about High Tea game?
- What **didn't you like** about High Tea game?
- Was it **paced** too fast/too slow?
- How did you find the **trading mechanism** easy to get the hang of?
- Did you find the '**strategy**' element of the game interesting?
- What do you think about the **quality/instructions/music/** etc?
- Did you successfully complete the game?
- How many times did you play the game?
- What **problems**, if any, did you have while playing this game?
- Did you **recommend** it to anyone/ who?
- Did you talk to anyone about this game?
- If there was one word to describe this game what would that be?
- How is the game **different/similar** to other games you have played?
- Is there anything that could have been done better?

Theme 3: Learning from High Tea game (10-15 min)

- What **information** did you pick up from playing the game?
- What information did you pick up?
- By playing the game, did you learn:
 - When were the opium wars?/
 - Who were they between?/
 - Why did they start?
 - Why did British traders want to sell opium to the Chinese?

- **Were you aware of the opium trade and the opium wars before** playing this game?
- What did you know about the opium trade and opium wars before playing the game?
- What else did you learn from playing High Tea?
- Do you feel you have a **better understanding** of the opium trade having played the game?
- Did you **go on to find out any more about the history** of Britain and China after playing the game?
- What do you think are **parallels between 'High Tea' and world affairs today**, if any,?

Theme 4: Feelings about High Tea game 5-7

The game puts you in the position of doing something rather morally dubious for money, so we'd like to know how this make you feel, or how you interpreted our own position on this.

- How did you feel about **Britain's colonial activities before** playing the game?
- How did you feel about **Britain's colonial activities after** playing the game?
- What was your general feeling about playing as a British **opium trader**?
- Did it make you uncomfortable? Why/why not?

Theme 5: Wellcome Collection (5-7 min)

- Were you **aware of** Wellcome Collection/Wellcome Trust before playing the game? (if yes, what the knew)
- Were you aware of Wellcome Collection website before playing the game?
- Have you ever visited Wellcome Collection? If yes, what they have seen. How often they visit.
- Did you go on to look at the Wellcome Collection site? Why/ Why not
- What did you find out?
- Would you be interested in playing more games produced by the Wellcome Trust?
- What have you seen?/Why not
- What do you think about Wellcome Collection having played the game?
- Have you ever contacted Wellcome Collection or Wellcome Trust?

Theme 6: final comments (3 min)

Is there anything else you would like share with us about High Tea?