

# A Systematic Review of Evidence for the Potential of Live Sites to Generate Community and Public Health Outcomes



**A SYSTEMATIC REVIEW OF EVIDENCE FOR THE POTENTIAL OF  
LIVE SITES TO GENERATE COMMUNITY AND PUBLIC HEALTH OUTCOMES**

by the

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## FOREWORD

Looking after the Health and Well being of our population is one of our main strategic objectives.

Although the NHS is synonymous with providing services for those who are unwell, we believe that central to our agenda is understanding the wider determinants of health and how they affect our population.

The wider determinants of health include the natural and built environment, how people move around their communities, how people live, play and learn and ultimately have a sense of place about where they live. All these factors will have a direct and indirect impact on people's health and well being.

Evidence suggests that there is a case to be made for how 'big screens' or 'live sites' in city centre's can contribute to civic indicators of social cohesion and cultural renewal, as well as contributing to the local economy by attracting inward investment, and promoting a town's distinctive identity.

NHS Eastern and Coastal Kent commissioned this review from the Centre for Sport, Physical Education & Activity Research (SPEAR) at Canterbury Christ Church University to examine the evidence for the range of potential community and public health outcomes that might be leveraged through initiatives making use of Live Sites with the purpose of maximizing the impact of the Live Site at Dover. However, undoubtedly the findings will be of interest to those responsible for other Live Site locations across the UK and beyond.

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## SUMMARY OF FINDINGS

### DEVELOPING COMMUNITY OUTCOMES FROM LIVE SITES

(see sections 3.1 and 4.1)

- The positive engagement of the local community with a Live Site is a **pre-requisite step** to developing strategies to leverage community (or public health) outcomes.
- Live Sites can bring **Places to People** by using screens and their surrounding environment to create, for different occasions, different **types of places** that will satisfy the varying demand within the local community for a range of social experiences.
- Live Sites can act as **Community Chameleon Facilities** to provide for a wider range of layers within the community than more traditional events, facilities or venues, that tend to be linked to a specific place with a specific heritage.
- Live Sites should be used to promote a **Family Model of Community Cohesion**, in which different layers of the community are not only accommodating of the activities of other community layers, but actively celebrate those activities as a source of community pride.
- Live Sites can become a source of **Community Self-Esteem**, which can lead to observable community outcomes relating to improved perceived community safety and greater respect between layers within the community.

### DEVELOPING PUBLIC HEALTH OUTCOMES FROM LIVE SITES

(see sections 3.2 and 4.2)

- In **ambient passive mode** (and in some cases in *ambient interactive* and *event passive* modes), Live Sites may have the potential to:
  - (a) **Prompt** healthful behaviours among those who know they should change.
  - (b) **Promote** more positive attitudes to healthful behaviours among those disengaged from health messages.
 To achieve this, strategies should:
  - I. *Focus on two market segments: "I know I should but..." & "Don't bother me"*
  - II. *Focus on including clear cues and shortcuts to health messages that can be processed quickly*
  - III. *Use a likable source*
  - IV. *Do not use 'fear appeals'*
  - V. *Use a one-sided message*
  - VI. *Focus on creating an emotional association*
- In **event interactive mode** (and in some cases in *event passive* and *ambient interactive* modes), Live Sites may have the potential to:
  - (a) **Provide** the latest health information for those looking for it.

(b) **Prompt** healthful behaviours among those who know they should change.

To achieve this, strategies should:

- I. *Focus on two market segments: "I'm already doing it" & "I know I should but..."*
- II. *Focus on including high quality arguments that can withstand critical scrutiny*
- III. *Use a credible source*
- IV. *Use 'fear appeals'*
- V. *Use a refutational two-sided message*
- VI. *Focus on communicating information*

- Live Site strategies seeking public health outcomes should: include repeated messages at different times and different occasions; integrate the same messages into a range of screen content; be part of wider public health campaigns including a range of other communication routes.
- To achieve public health outcomes live sites must retain **source credibility and coherence** by ensuring that, regardless of the occasion, events or activities are not sponsored by, and do not promote, brands selling products that undermine healthful behaviours.
- The immediate commercial environment around the live site (both local organisations and businesses, and temporary commercial concessions) can be harnessed to support public health outcomes by giving target segments the opportunity to act immediately to make healthful changes to their behaviours (e.g. buy healthful foods, join physical activity classes).
- Live sites should programme attention grabbing content sparingly, and in a strategic way, to ensure the highest impact and to avoid being regarded as **visual pollution**.

## 1) INTRODUCTION

The emergence of 'big screens' or 'live sites' in city centres has historically developed from two distinct, but increasingly converging directions, which were each initially underpinned by very different motivations. More long-standing is the commercially-driven development of traditional advertising billboards (seen in most towns and cities), into electronic advertisements (such as those in London's Piccadilly Circus or New York's Time Square), and finally into fully functioning screens that Manovich (2002) and Struppek (2006) characterise as 'moving billboards', streaming similar advertising content to that which appears on commercial television stations. A more recent development has been driven by more community-oriented motivations to provide a celebratory public space for communal enjoyment of major events and festivals. Initially serviced by temporary screens erected at the time of, in most cases, sporting events such as the Football World Cup or the Commonwealth Games, but also for other events such as the Proms in the Park screenings streamed from the Royal Albert Hall during Proms season, such screens are increasingly being erected on a more permanent basis. In addition, somewhere in between these two converging forces is the emerging appearance of 'information screens' in sites such as railway stations (e.g. Kings Cross in London), streaming both advertising content, but also live 24 hour news supplied by providers such as Sky. Against this background, and perhaps representing the final convergence of the two historical forces outlined above, is the 'Live Sites' project, one of the national projects as part of the four-year Cultural Olympiad as a prelude to the London 2012 Olympic and Paralympic Games. Nineteen screens are planned around the UK as part of this project, which is being co-ordinated by a BBC programmer in each region. The purpose of the systematic review presented here has been to identify the evidence base for the community and public health outcomes that Live Sites can bring to local communities, and to identify strategies that might be developed to secure such outcomes.

### 1.1) RESEARCHING LIVE SITES

There has been little previous research focussing on big screens or Live Sites, as such this review needed to examine literature in a range of areas and explore how this could be applied to understanding the potential of Live Sites to generate community or public health outcomes. Areas of literature which this review explored include:

- Critiques and commentaries (although rarely including empirical evidence) in urban sociology which have suggested that 'Urban Screens' have considerable potential to contribute to social cohesion, urban and cultural renewal and some aspects of public health.
- Ethnographic research on virtual spectating (and some wider research on the potential health impacts of events) which has suggested that collective mediated viewing or festive participation can be an intense experience that can lead to a sense of belonging and collectivism (although often temporary) that can have a positive impact on psychological well-being.
- Research in urban geography which examines how 'spaces' (the physical environment) can become culturally significant 'places' as local communities attach meaning and significance to them over time.
- Research from advertising and communication sociology about the production, reception and (re)interpretation of messages and meanings, which may also relate to the reception of the Live Site over time, its potential integration into the community, and the way in which it may become seen as an important part of community identity.

## 1.2) THE SCOPE OF THE REVIEW

As the evidence directly related to Live Sites is sparse, the systematic review was initially guided by two related questions

1. ***What are the potential public health, social cohesion, cultural engagement and urban development outcomes that might be achieved in local communities, and how might these be relevant to initiatives making use of a permanent town centre 'Live Site'?***
2. ***What strategies can be used to leverage public health, social cohesion, cultural engagement and urban development outcomes, and how might these be used as part of initiatives making use of a permanent town centre 'Live Site'?***

Drawing these two questions together, the key outcome sought from the systematic review, with the aim to inform strategy for the use of Live Sites, is:

***To provide evidence of the range of potential community and public health outcomes that might be leveraged through initiatives making use of a 'Live Site'***



## 2) METHODS AND PROTOCOL

### 2.1) THE SYSTEMATIC REVIEW PROCEDURE

There has been an increasing interest in collating evidence to inform policy in recent years, and increasingly the traditional literature review is being seen as inadequate in accessing the *best-evidence* for policy decisions. In 2001 the ESRC funded the establishment of an *Evidence Network* dedicated to the improvement of the evidence base for policy and practice in the social sciences. This Evidence Network has promoted and developed the use of the Systematic Review procedure to collate research evidence and inform policy development, and it is this procedure that has been used to search, analyse and synthesise the evidence base for the potential of Live Sites to generate community and public health outcomes.

The systematic review procedure differs from a traditional narrative literature review as it explicitly focuses on an objective, replicable, systematic and comprehensive search of literature and research evidence, and includes a transparent audit trail of methods and processes (Coren and Fisher, 2006). As such it has been seen by organisations such as NICE (National Institute for Clinical Excellence) and the ESRC as providing a more comprehensive and transparent method for assembling the ‘best evidence’ to inform policy than traditional reviews of literature.

Systematic review uses a Review Panel to advise on protocols and search criteria for a particular area of study, and consults the panel on criteria to assess the quality of the research reviewed. More recent approaches to systematic review have extended the role of the panel to provide ‘Delphi’-type expert input that assists in identifying sources of ‘grey’ literature that might not be readily apparent through a search of peer-reviewed material. In fact, the incorporation of ‘grey’ literature, such as conference papers, discussion documents and a range of other unpublished materials, into the systematic review process has been one of the major reasons for its widespread adoption in informing policy development in areas as diverse as urban regeneration, housing, social care, criminal justice, and education, and is a standard part of the process that ensures biases are reduced within systematic reviews (Lefebvre & Clarke, 2001)

The rigorous and extensive search criteria adopted in the systematic review procedure, alongside the comprehensiveness and quality control ensured by both the Review Panel and the review process itself, means that it is a highly relevant and appropriate procedure to use in assessing the evidence for the potential of Live Sites to generate community or public health outcomes, and the strategies that might be developed to secure such outcomes.

### 2.2) THE SYSTEMATIC REVIEW OF EVIDENCE FOR THE POTENTIAL OF LIVE SITES TO GENERATE COMMUNITY AND PUBLIC HEALTH OUTCOMES

The systematic review of evidence for the potential of Live Sites to generate community or public health outcomes commenced with the first meeting of the Review Panel. The meeting outlined initial exploratory searches to refine the most fruitful search terms and to identify the most appropriate databases related to the bodies of literature identified. A rapid evidence evaluation search to identify whether any potentially significant bodies of evidence have been overlooked was outlined and the Panel also considered potential sources of ‘grey’ or unpublished literature.

The initial exploratory work can be quite “messy”, and its focus is threefold:

- (1) To conduct experimental searches in a range of databases to identify which will be most useful in returning relevant research.

- (2) To conduct a wide range of experimental searches with a wide range of keyword combinations to establish which will be the most productive in returning relevant returns.
- (3) To identify key sources of “grey” literature.

In respect of (1) and (2), this process involves conducting searches which often have very high returns (up to 15,000 sources). These returns are then *sampled* (e.g., every 10<sup>th</sup> return is examined) and assessed for relevance. The sample is also *mined* for keywords in an attempt to examine those that are most relevant and widely-used in the literature. Some of these exploratory searches also have very low returns (sometimes in single figures), thus also highlighting which keywords and keyword combinations are too restricting. Essentially, this is a process of trial and error to refine an effective search strategy (see for example, Petticrew and Roberts, 2006).

The databases included in the formal searches, were:

- SPORTS DISCUS (Sport, Exercise, Leisure and Tourism)
- CINAHL (Health Care)
- ASSIA (Geography/Sociology)
- IBSS (Geography/Sociology)
- Business Source Premier (Advertising/Marketing and Communication)

With some slight modifications for the specific databases (e.g., the term “public view\*” was amended to “public viewing” / “public viewer” for the database Business Source Premier to overcome a high return rate of articles on views held by the public (“public views”)<sup>1</sup>, the following is the primary search used across these databases:

Date range

January 1990 – December 2009

Single Searches:

“live site\*”; “urban screen\*”; “fan park\*”; “outdoor screen\*”; “public view\*”

Combined Search

(urban\* OR city\* OR town\* OR locat\* OR place OR places)

AND

(venue\* OR festival\* OR event OR events OR concert\* OR theatre\* OR spectacle OR ceremon\* OR stadium\* OR arena\* OR billboard\* OR televis\*)

AND

(communit\* OR engage\* OR audience\* OR reception OR spectator\* OR fan OR fans)

Once duplicates across the databases were removed, this search returned 3,530 sources. Titles of the returns were reviewed by the Review Panel for inclusion on the basis of relevance to either or both of the two review questions (listed in section 1.2) and 608 sources were selected for inclusion in the next stage of the review.

Following this initial filter, the abstracts of the 608 sources were each independently reviewed by two panel members on the basis of relevance and quality proxies (e.g., those that were in ‘popular’ sources, such as

<sup>1</sup> The \* symbol is a wildcard so, for example, “promotion\*” will pick up “promotion”, “promotions”, and “promotional”

the US magazine “Sports Illustrated” were excluded). Where the two panel members disagreed on inclusion, a third panel member also assessed the source. On the basis of this filtering process, 130 sources were identified for full text retrieval.

The Review Panel also met to discuss whether it appeared that any significant papers or bodies of literature were missing. It was agreed that the 130 articles represented a good coverage of the research literature. However a number of suggestions for further sources of evidence were made, particularly sources of grey literature such as the BBC, the Commission for Architecture and the Built Environment, (CABE), English Heritage, the Royal Institute of the Built Environment (RIBA) and the Urban Screens project. Specific suggestions for individual papers were also made and searches of, and contacts with, these sources of grey literature were ongoing throughout the project, with full text sources being retrieved where possible.

Of the 130 sources identified through the electronic searches, 6 were irretrievable, whilst a further 33 sources of grey literature were identified and retrieved in full, resulting in the inclusion at this stage of 157 full text sources.

Review Panel Members independently assessed the sources to identify which should be included for further review on the basis of relevance to either or both of the two review questions. The consolidation of the views of the Panel Members resulted in a list of 82 sources rated as relevant.

At this stage, the content of the 82 sources began to cluster around two key areas: (a) the development of community outcomes from events, facilities and venues; (b) the way in which big screens might be used for public health outcomes. Consequently, the sources were reviewed once more, largely for quality, but also for relevance to either or both of: (1) developing community outcomes from Live Sites; (2) developing public health outcomes from Live Sites. Given the general lack of evidence specifically on big screens, a rudimentary approach was taken to quality appraisal, assessing each of the sources for relevance (topic), publication type, location of the research, and the type of evidence used or analysis conducted. Following this review a further 33 sources were excluded as not being of sufficient quality or relevance. Summary quality appraisal tables are included in section 3, and they provide a transparent note of the nature of the evidence in each of the included sources. The final number of included sources was 49, which related to each of the two areas as follows (one source was included in both areas):

- (1) The Development of Community Outcomes from Live Sites - 27
- (2) The Development of Public Health Outcomes from Live Sites - 23

An overview of the review process is provided by figure 2.2i.

As the overwhelming majority of sources returned in the review were qualitative or discursive, a form of inductive thematic analysis has been used (Braun and Clarke, 2006). For each area, the studies were initially read collectively to identify between 10 and 20 *descriptive* themes that emerge across studies. These descriptive themes were then integrated to develop three higher order *conceptual* themes which were subsequently used as a framework to analyse the evidence in respect of the particular review question. In both developing the higher order conceptual themes from the descriptive themes, and in using the conceptual themes to conduct the analysis, attention has been paid to the weight that might be given to particular bodies of evidence and perspectives on both quality and relevance grounds. The product of this analysis is a *narrative synthesis* (Pope and Mays, 2006) which ‘tells the story’ of the research returned in thematic and substantive terms.

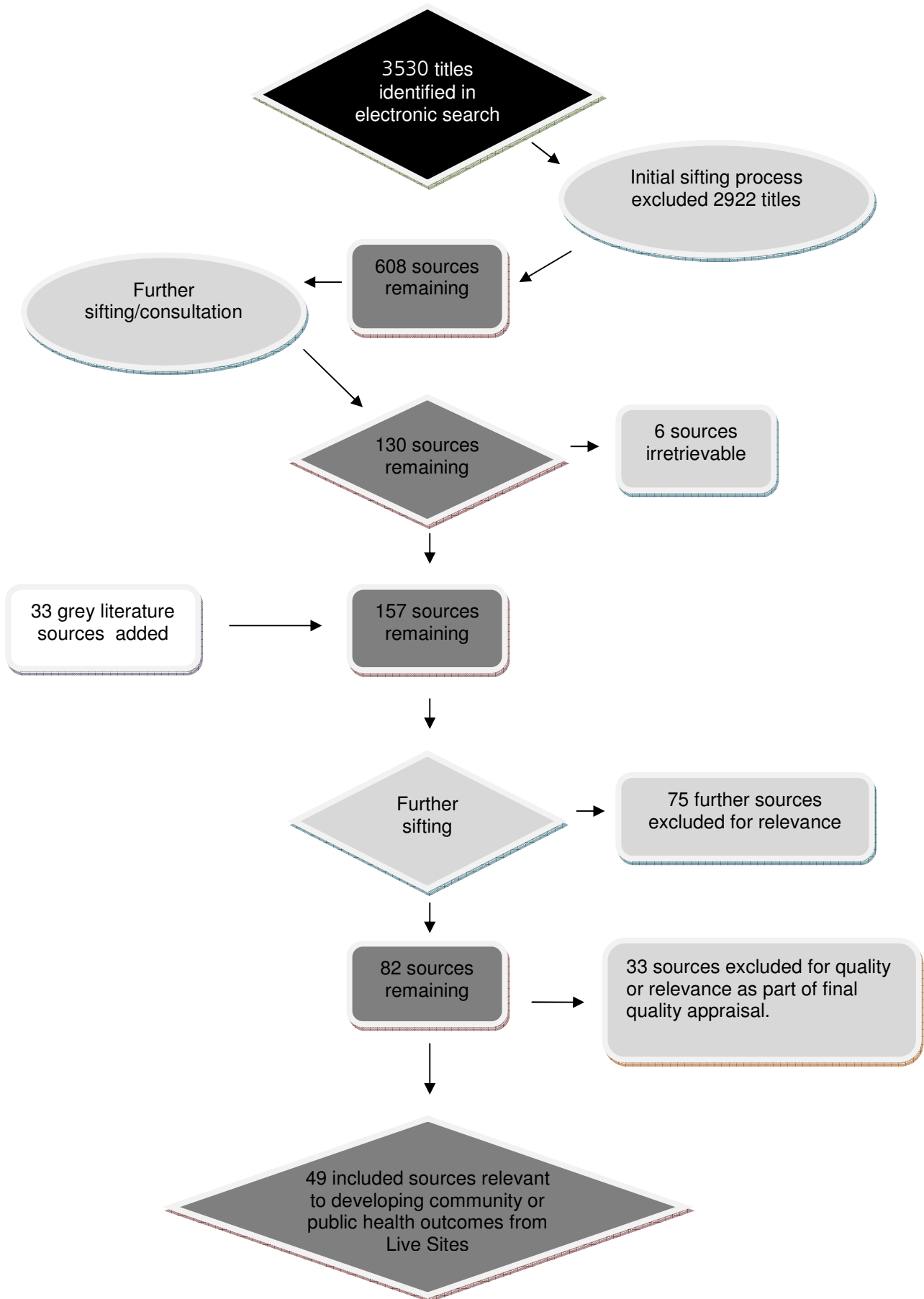


Figure 2.2i: Overview of the Systematic Review Process

The following two sections comprise the substantive description (section 3) and interpretation (section 4) of the results from this review. The descriptions in section 3 are principally based upon the evidence returned in relation to each question, whereas the interpretations of the implications of the results in section 4 suggest the potential ways in which the results might be applied to develop community or public health outcomes from Live Sites.

### 3) DESCRIPTION OF RESULTS

#### 3.1) DEVELOPING COMMUNITY OUTCOMES FROM LIVE SITES

There were 27 sources included that were relevant to this area. The inductive thematic analysis led to the emergence of 11 themes, with the following three consolidated higher order themes being used to structure the analysis that follows:

- Positive Engagement
- Heritage and Nostalgia
- Communities and Cohesion

The quality appraisal of the 27 sources is presented in table 3.1i. Of these sources, 23 included some analysis of research or secondary evidence or literature, whilst 24 were published in refereed journals, one in a practice journal, and two were research reports. This suggests, quite rightly, that the quality of these sources is generally good. However, only three of the sources contain direct evidence of big screens, and as such the discussions in this section involve the application of evidence from related areas, albeit good quality evidence, to the development of community outcomes from Live Sites.

##### 3.1.1) POSITIVE ENGAGEMENT

The sources returned provide compelling evidence that a pre-requisite for achieving community outcomes developing any impacts from any project of the scale of a Live Site is the support of the target population for that project. Weed et al (2009; 29), in relation to the potential to leverage physical activity and health outcomes from the 2012 Games, note that if the population holds negative perceptions of, or attitudes towards, the Games, the potential to use the Games (and, by extension, any Games linked initiatives such as Live Sites) to develop outcomes within that population is “likely to be considerably reduced, if not negated”, and that evidence from a wide-range of sectors beyond physical activity and health supports this view (Brown & Massey, 2001; Crompton, 2004; Deccio & Baloglu, 2002; Fredline, 2005; Ohmann et al, 2006; Waite, 2003).

In empirical research on attitudes to the 2012 Games, Cragg Ross Dawson (CRD, 2007) showed that a lack of awareness about legacy goals or plans leads to scepticism, something that Ntloko and Swart (2008) also found in relation to residents attitude to the outcomes sought from surfing events in South Africa. Often, such scepticism can be linked to the local population’s beliefs about the failure of previous public policy projects or adverse media coverage. Cragg Ross Dawson (2007) found that people wanted to believe that positive benefits would be forthcoming, but did not feel they had been shown any evidence that this would be the case, and so fell back on their prior perceptions and media comment to underpin a negative view. These findings reinforce Ntloko & Swart’s (2008; 90) findings that, “For community benefits to be addressed, the results indicate a clear need for community involvement...it is therefore paramount that organisers of the event get buy-in of residents to host a successful event”.

AUTHOR (DATE)	PUBLICATION TYPE	TOPIC	LOCATION	EVIDENCE
Balsas (2004)	Refereed Journal	Events and urban regeneration	Porto, Portugal	Case Study
Belanger (2000)	Refereed Journal	Entertainment and urban regeneration	Montreal, Canada	Case Study
Brennan-Horley et al (2007)	Refereed Journal	Events and economic development	Parkes, Australia	Primary Research
Carr & Servon (2009)	Refereed Journal	Cultural preservation & urban regeneration	USA	Primary Research
Crag Ross Dawson (2007)	Research Report	Olympic Games	UK	Primary Research
Daniels & Johnson (2009)	Refereed Journal	Social impacts of community facilities	USA	Primary Research
Finkel (2009)	Refereed Journal	Arts festival development	UK	Primary Research
Frew & McGillivray. (2008)	Refereed Journal	Virtual spectating / sport fan experiences	Germany	Primary Research
Glover (2004)	Refereed Journal	Citizenship & community development	Ontario, Canada	Primary Research
Hier (2004)	Refereed Journal	CCTV	Canada	Theoretical Discussion
Hutton (2004)	Refereed Journal	Urban regeneration	Vancouver, Canada	Case Study
Johnson (2006)	Refereed Journal	Cultural capital	Victoria, Australia	Case Study
Kraszewski (2008)	Refereed Journal	Virtual spectating, identity & sport fandom	Texas, USA	Primary Research
Lavenda (1991)	Refereed Journal	Community festivals	Minnesota, USA	Commentary
Mason et al (2005)	Refereed Journal	Heritage and sport tourism	Canada	Narrative review
Matei et al (2001)	Refereed Journal	Perceptions of urban space	LA, USA	Primary Research
Mazumdar et al (2000)	Refereed Journal	Identity and place	California, USA	Primary Research
McCarthy (2000)	Refereed Journal	Urban televisions and society	USA	Primary Research
Mellor & Stephenson (2005)	Refereed Journal	Community development and festivals	Durham, UK	Primary Research
Mooney (2004)	Refereed Journal	Event and urban regeneration	Glasgow, UK	Narrative Review
Newman (1999)	Refereed Journal	Community impacts of Olympic Games	Atlanta, USA	Commentary
Ntloko & Swart (2008)	Refereed Journal	Community impacts of sport tourism events	South Africa	Primary Research
Quinn (2005)	Refereed Journal	Cultural event led urban regeneration	Ireland	Literature Review
Tucker (2008)	Refereed Journal	Cultural event led urban regeneration	Glasgow, UK	Narrative Review
Weed et al (2009)	Research Report	Olympic physical activity, sport and health legacies	World Wide	Systematic Review
Weed (2007)	Refereed Journal	Virtual spectating / sport fan experiences	UK	Primary Research
Williams (2006)	Practice Journal	Community impacts of stadia	UK	Commentary

Table 3.1i. Summary of Quality Appraisal for Included Sources Relating to Developing Community Outcomes

Some research has suggested that multi-event festivals, such as the Edinburgh Festival and the European Capital of Culture, are becoming 'copy and paste' events (Balas, 2004) and that based on data from a number of festivals, a "homogenous combined arts festival 'type' is developing and replicating" across the UK (Finkel, 2009; 3). Finkel (2009) also argues that this loss of originality weakens the symbolic connection that events can have with the communities and places within which they are held, particularly if the local population feels that the public sector investments favour business interests rather than the local community (Newman, 1999). As such, any suggestion that the Live Site is being 'exploited' by advertisers, or for the benefit economic interests, will be counter-productive and may result in local communities disengaging from the Live Site (Mooney, 2004).

The implication of this range of evidence is that for Live Sites to develop community outcomes, they must firstly positively engage the communities among whom such outcomes are sought. Put simply, as Weed et al (2009; 39) note, "communities need to be convinced that there is some benefit in their social and psychological relationship" with a project such as a Live Site. If they are not convinced, communities will simply not engage, and as a consequence will be beyond the reach of any initiatives that use the Live Site to attempt to effect change. Therefore, community outcomes are only possible from Live Sites through taking the *pre-requisite step* of ensuring the positive engagement of local communities with such Live Sites.

### 3.1.2) HERITAGE & NOSTALGIA

A key theme in much of the evidence returned in this review is the need to link community places, venues or facilities with collective celebrations of local traditions and memories, thus creating a local heritage for which nostalgia can be generated (e.g. Belanger, 2000; Mason et al, 2005; Mazumdar et al, 2000), and this is also reflected in much of the wider literature. Both the review sources and the wider literature discuss the ways in which, for example, major league baseball stadiums incorporate symbols to exploit the demand of both the local population and visitors for heritage and nostalgia (Belanger, 2000; Mason et al, 2005).

However, Mason et al (2005) cite Fairley and Gammon (2005) who note that there are two broad forms of nostalgia: nostalgia for place or artefact, and nostalgia for social experience. Traditionally, and in the majority of the literature, nostalgia is perceived to be for place or artefact, such as watching a Test Match at Lords, the 'home of cricket', or being in the presence of the Mona Lisa in the Louvre in Paris. However, recent work in relation to 'virtual spectating' of sport events (such as that experienced at a Live Site or in a public house) has suggested that the spectating experience is not defined by being present live at the event, but by the shared communal spectating experience (Frew & McGillivray, 2008; Kraszewski, 2008; Weed, 2007) which may equally be felt on 'Henman Hill' at Wimbledon or in a public house during a World Cup Football match. This resonates with the second aspect of nostalgia suggested by Fairley and Gammon (2005), that for social experience. Nostalgia for social experience simply means the desire for a social experience similar to that which one has enjoyed on previous occasion(s). The key here, of course, is that nostalgia for social experience need not be linked to place and can thus be generated in places removed from the 'live' place or 'original' artefact.

Brennan-Horley et al (2007), for example, studied the 'Elvis Revival Festival' in Parkes, Australia, which in 2004 attracted 2,500 visitors who collectively spent AUS\$1.1 million in the local community. The size and popularity of this festival is particularly significant because:

"...this remote place with few economic prospects has created a tourism resource and captured national publicity, through a festival based around commemoration of the birthday of Elvis Presley, a performer who had never visited Australia, and certainly not Parkes, nor had any other links with the town."



Therefore, as Parkes clearly has no connection with any original ‘artefact’ or place linked to Elvis Presley, it has developed a significant event based solely on nostalgia for social experience, in this case the communal celebration of the life of Elvis Presley.

Mason et al’s (2005) study of Canadian ice hockey suggests that, in addition to nostalgia for social experience, nostalgia for place can also be generated away from the ‘live’ or ‘original’ place or artefact. They noted that nostalgia for ice hockey in Canada was linked to the game being played on outdoor rinks that were seen as being closer to the natural elements and thus representing a purer form of the game than that played in newly-built comfortable indoor arenas. As such, there was a nostalgia for place; however, not for a *specific place*, but for a mythical *type of place* that could be recreated in a number of different locations (including soccer stadiums, parks and other outdoor open spaces). This suggests that the satisfaction of nostalgia for social experience can be enhanced by creating the *type of place* in which that social experience might be expected to occur, but that this place need not be permanent, nor specifically linked to the particular location in which an event or activity takes place.

This suggests an engagement strategy for Live Sites that is very different to that for other types of events, facilities or venues. Belanger (2000) notes that major sports franchises (e.g. baseball in North America, football in Europe) attempt to both engage local communities and attract visitors by rooting the franchise in the heritage and traditions of the local community, and the past achievements of the team which in turn become part of the heritage of the place. This is a strategy of generating and satisfying nostalgia linked to a *specific place* and the heritage meanings associated with that place. However, the above evidence suggests that an alternative strategy of generating and satisfying nostalgia linked to social experiences in a *type of place* is possible. Here, instead of bringing people to a specific place for which they have nostalgia, a type of place that satisfies nostalgia for social experience is created and brought to people through a Live Site. Examples of this are widespread. For example, the 2006 World Cup in Germany created “Fan Fest” public viewing sites which surrounded the big screens with football related paraphernalia, including the flags of the countries taking part, the World Cup branding and logo, souvenir and other concessions, all within an enclosed space surrounded by colourful fencing that helped re-create the *type of place* in which the social experience of football spectating takes place (see Picture 1). Similarly, the Big Screen in Hull has been used as the focal point for a temporary “snowzone” (see Picture 2), incorporating the import of real snow into the area around the screen, thus creating a *type of place* that provides opportunities for social experiences, including taking part in snowboarding and watching live professional displays, that would not normally be possible in a city centre.



Picture 1: World Cup 2006 FanFest in Munich



Picture 2: Snowzone in Hull

The above examples demonstrate, however, that the *type of place* that needs to be created to cater for nostalgia for social experience will vary substantially from occasion to occasion. Consequently, the key advantage that Live Sites possess that other facilities and venues do not is their ability to be *chameleon facilities* for local communities, changing the type of place that they bring to the community according to the occasion and the environment that is created around the screen. The importance of the environment around the screen is noted by McCarthy (2000) in her study of the way TV sets in public places such as cafés, bars and other leisure spaces have been customised with pictures, souvenirs and symbols to reinforce the nature and purpose of the space in which they are located. McCarthy (2000; 327, 308) concludes from her work that:

“...there is more to TV and video than their images and stories; the image [can be] connected to other images and objects in the space around the screen....A vast repertoire of ideas and gestures comes to life in the placement of the screen in a particular environment, in the things that decorate it and in the images it sits near in a social space.”

Thus the potential of Live Sites lies not just in the screens themselves, but in the potential to customise the environment around them to bring various types of places to communities to cater for nostalgia for a range of social experiences that might not readily be associated with that location. The ability to make such provision has the potential to make an important contribution to what Baade and Sanderson (1997; 471, cited in Mason et al, 2005) call “a city’s liveability”.

There are, however, several critiques of the ‘packaging’ of heritage that suggest that local traditions and memories can be appropriated by economic interests and interpreted in such a way to benefit business interests rather than local communities. Belanger’s (2000) critique, for example, suggests that local traditions and memories are often packaged to attract spending from visitors and more affluent members of local communities, but in such a way that is often actively exclusive (either by pricing or policing) of the very local communities from which the traditions and memories originate. However, in contrast to this exploitative approach, the engagement strategy suggested for Live Sites focuses on bringing the heritage of other places to the local community to satisfy their nostalgia for social experiences. Consequently, local communities become the beneficiaries of the provision of a range of social experiences, rather than being exploited to provide experiences for others.

In summary, the evidence describes common strategies for events, facilities or venues that focus on bringing ‘people to places’ by characterising a *specific place* as having a particular heritage. Such strategies have been criticised for excluding sectors of the local community, and can thus result in community resentment and disengagement from the event, facility or venue. In contrast, there is evidence that a potentially successful strategy for Live Sites might be to focus on bringing ‘Places to People’ by using the Live Site and its surrounding environment as a *community chameleon facility* which, rather than developing as a *specific place* with heritage meaning, can create a *type of place* appropriate for a particular occasion in which nostalgia for social experience can be satisfied. Furthermore, because the *type of place* can be changed to suit the occasion, Live Sites have the potential to cater for a wider range of community interests than events, facilities or venues that seek to develop as specific places linked to a specific heritage.

### 3.1.3) COMMUNITIES AND COHESION

Much of the evidence returned in this review (Belanger, 2000; Brennan-Horley et al, 2007; Carr & Servon, 2009; Hutton, 2004; Tucker, 2008), and much of the wider literature, focuses on an economic model of community, in which the community is harnessed to contribute to the development of a local identity or heritage that can attract visitors and inward investment. However, as section 3.1.2 has shown, these

models have attracted criticism for being exclusive of sections of local communities because they tend to focus only on the most marketable aspects of local heritage, and as a consequence tend to suggest that local communities are homogenous (Belanger, 2000; Carr & Servon, 2009).

Carr and Servon (2009; 28) suggest that, “Well functioning urban neighbourhoods are dense and dynamic and accommodate a mix of users”, something that is reflected throughout the studies that focus on the nature of communities (Hutton, 2004; Lavenda, 1991; Mooney, 2004; Tucker, 2008). However, much of the literature relating to community development and engagement focuses on a need for communities to develop a coherent sense of identity, which seems to suggest that homogeneity rather than diversity is needed to develop strong and cohesive communities. The key question, therefore, is how can communities be engaged in such a way that all parts of the community feel involved.

Mellor and Stephenson’s (2005) study of the Durham Miner’s Gala notes that the communities they studied were based on people feeling that they were “part of a web of diverse and inter-locking relationships” (p.347). Similarly, Carr and Servon, (2009; 29) concluded from their case studies of good practice in urban economic development that, “most communities incorporate layers of residents”, whilst Mazumdar et al’s (2000) study of ‘Little Saigon’, a Vietnamese community in California, showed that within that community there were at least five identifiable ‘multi-layered’ sub-communities. Furthermore, in each of these studies, the embedded layers within the community ranged across generations, but these groups each participated in events that bring the community together:

“People of different ages experience these ceremonies in different ways. Adults enjoy the plays, speeches and the music, teenagers take the opportunity to meet people from the opposite sex and sample the food, and young kids are excited by the rides and martial arts demonstrations.” (Mazumdar et al, 2000; 327)

These types of embedded communities suggest a *family model of community cohesion*, in which different layers embedded in communities take an interest in the activities of other layers because they are all ultimately members of the same community. This is similar to the way in which grandparents will take an interest in their grandchildren’s interest in, for example, break dancing, not because they themselves are interested in break dancing, but because they are interested in the activities of other members of their family. Similarly, grandchildren may be interested in their grandfather’s war experiences, although they may have little general interest in World War II history. Glover (2004; 78), in his study of the range of groups that use local community centres, calls this “a sense of conditional altruism, wherein the members of a group take the interests of others into consideration”, with layers within communities seeking not only to accommodate, but also to celebrate, the interests of other layers, on the condition that their interests will also be accommodated and celebrated.

Weed et al’s (2009) review of evidence for health and physical activity legacies from major events also noted the potential for altruism among different layers within communities. They cited both Waitt’s (2003) and Decclio and Baloglu’s (2002) research on the Sydney 2000 Olympic Games, which each noted the potential for ‘altruistic surplus’, whereby individuals would support an initiative if there were no perceived benefits to themselves, as long as other groups in their community would benefit. This led Weed et al (2009; 41) to conclude:

“The message, therefore, is that communities need to be convinced that there is some benefit in their social and psychological relationship with an event. The benefit need not be direct for each individual, but can be for the wider community, or for other groups that individuals or communities believe are deserving of such benefits. Importantly, the local relevance of benefits appears to be significant.”

The latter part of Weed et al's (2009) conclusion is highly significant, and is also addressed by Mooney (2004) in his critique of the long-term impacts of the Glasgow City of Culture initiative in 1990. Mooney (2004; 335) suggests that while the 'official' story is one of economic success, such impacts have not necessarily benefitted the local population:

"The message that is promoted by the City Council and other agencies is that Glasgow is on the 'up'. In reports such as '*Upbeat Glasgow*' (Scottish Enterprise Glasgow, 2001) and '*Glasgow's Continuing Prosperity*' (Glasgow Economic Forum, 2003) the picture portrayed is that Glasgow has enjoyed an 'economic renaissance'....[However], there is mounting evidence of deep-seated unemployment. In 2001, the City had an economic inactivity rate of 32% (123,000 people), well above that for Scotland (25%) and the UK (22%) (source: Slims, 2003), and an employment rate of 61%, which is one of the lowest in the UK."

Furthermore, aspects of the local population had long-opposed the City of Culture initiative. Mooney (2004; 331) cites a pamphlet produced by a community opposition group, *Workers' City*, in 1990:

"...the Year of Culture has more to do with power politics than culture. It has more to do with millionaire developers than art...With Saatchi and Saatchi's expert help they revamp the image and leave reality behind. They propagate an image which is false. There is deprivation and dereliction of the housing schemes...there is chronic unemployment and widespread DSS poverty with the usual concomitants – drug abuse and the manifold forms of community violence. This is not the Merchant City, but this is the real Glasgow." (*Workers' City: The Reckoning*, 1990; 87).

The Glasgow example, and the reaction of the *Workers' City* group, offers a warning of the potential backlash that can develop if local communities are not positively engaged, with the more subtle message being that not only do communities need to be positively engaged, but all layers of communities must perceive that the initiative in question brings benefits with local relevance, even if the direct benefit is not always to them. Weed et al (2009; 41) cite evidence from Crompton (2004) and Spavero and Chalip (2007) to illustrate the community benefit that locals may perceive comes from professional sports franchises. Crompton (2004; 49) calls such benefits "psychic income...the emotional and psychological benefits residents perceive they receive, even though they do not attend", whilst Spavero and Chalip (2007; 17) describe:

"...community self-esteem [which has] an external component, through which residents believe that outsiders have a positive view of their community, and an internal component, which refers to the residents' own perception of their community"

Essentially, both psychic income and community self-esteem refer to the way in which a particular initiative, such as a Live Site, can become a source of pride for communities, both internally, if it is seen as something that serves the needs and interests of all layers within the community, and externally, if it is perceived to be something that other communities may covet.

How, then, might the evidence outlined above contribute to the '*Places to People*' strategy for Live Sites suggested in the previous section. Three key insights are suggested. Firstly, it would appear that Live Sites' ability to be *community chameleon facilities* brings significant advantages. Live Sites can satisfy the different social experiences for which different layers of the community have nostalgia by creating a different *type of place* for different occasions according to the social experience sought. On one occasion, the Live Site might be the focal point for the creation of the *type of place* appropriate for the social experience of watching a football match (see picture 1 in section 3.1.2), whilst on other occasions the *type*



*of place* appropriate to the social experience of a beach festival (see picture 3), Last Night of the Proms (see picture 4), a Mela festival (see picture 5) or Remembrance Day (see picture 6) can be created.



Picture 3: Beach ArtsFest in Birmingham



Picture 4: Last Night of the Proms in Plymouth



Picture 5: The Leeds Mela Festival



Picture 6: Remembrance Day in Derby

Each of the events illustrated serve different layers of the community. However, the second insight from the evidence outlined in this section is the way in which each layer of the community must be encouraged to engage with the Live Site. The key to effective community engagement and development is that each layer of the community must not only be committed to accommodating other layers, but also to celebrating the activities of other layers, therefore seeing any activity or event at the Live Site as being a source of community pride. The challenge is to develop an engagement with the Live Site in which any activity or event that serves a layer of the community, is seen as serving the whole community because it celebrates the role of the Live Site within the community. To achieve this requires that the *type of place* that is created around the Live Site for any occasion must be inclusive and welcoming of all layers of the community. Thus, teenagers must feel welcome at Remembrance Day, immigrant communities must feel welcome at Last Night of the Proms, and both young families and senior citizens must feel welcome at football matches.

There is a growing body of evidence that the environment in which events and activities take place can influence behaviour (Frew & McGillivray, 2008; Williams, 2006). Frew and McGillivray's (2008) study of the FanFests at the Football World Cup in Germany 2006 highlighted the way in which the German hosts had actively welcomed fans without tickets for the first time. At previous tournaments, fans without tickets had been warned to stay away, and those travelling without tickets were seen as deviant fans likely to engage in hooligan or other illegal behaviours. However, for Germany 2006, "the underlying rationale...was to ensure

that Germany provided a welcoming environment for a variety of fan groups, offering a peaceful and tolerant space through which to consume the World Cup experience” (Frew & McGillivray, 2008; 187). The outcome of this strategy, according to Frew and McGillivray (2008; 187), was a re-branding of the nature of the football tournament:

“Through the Fan Park concept the World Cup re-branded itself as a cosmopolitan event displaying an international array of food and beverages with plentiful opportunities for merchandising, entertainment (outside football), music and activities for all the family...comfortable consumption outside of, yet central to, the main event itself.”

The key to developing the *types of places* created around Live Sites as inclusive is linked to the *family model of community cohesion*, and this provides the third insight from the evidence outlined in this section. A *family model of community cohesion* requires that the community takes responsibility for all its layers, rather than seeking to regulate and limit the engagement of different layers to events and activities that are perceived to be appropriate for them. Hier (2004) addresses this issue in his study of the use of CCTV in urban areas, suggesting that CCTV can lead to the disintegration of community, as different layers seek to use the technology to police and punish the behaviour of other layers within the community, rather than taking responsibility for including other layers. This can lead to a situation where different layers within a community no-longer see the activities and interests of other layers as valuable, and thus ‘altruistic surplus’ (Decclio and Baloglu, 2002; Waitt, 2003), whereby layers of the community are pleased to support activities and events that would benefit other layers within their community, is no longer generated. Consequently, the key to the inclusive engagement of the community and all of its layers with Live Sites, is to ensure that the *types of places* that are created around Live Sites are inclusive and welcoming of all layers of the community, thus promoting a *family model of community cohesion* in which all layers of the community take responsibility both for themselves, but also for those around them (Glover, 2004). The review suggests that communities that develop in this way can have direct positive benefits for local residents. Firstly, in terms of improved perceived community safety, Quinn (2005) notes that community ‘festivity’ can “combat the growing alienation and insecurity felt in public space” (p.935), and Matei et al (2001) show that areas in which people perceive themselves to belong to a community result in greater feelings of security. Secondly, Daniels & Johnson (2009) found that community facilities, in this case playgrounds, that were perceived to belong to the community experienced low levels of vandalism, with Johnson (2006) suggesting a similar effect among artworks in public spaces. Finally, Williams (2006) describes the improved behaviour that can take place at football stadia (referring to case studies of Watford and Huddersfield) if strategies are followed to position the stadium as a community resource. This outcome evidence suggests that there are observable benefits to communities in pursuing the development of an inclusive *family model of community cohesion*.

#### 3.1.4) A MODEL FOR A ‘PLACES TO PEOPLE’ STRATEGY

In summary, the evidence in this section indicates that the strategy for Live Sites suggested in the previous section of satisfying nostalgia for social experience by bringing ‘*Places to People*’ is enhanced by the ability of Live Sites to be *community chameleon facilities* that can create different *types of places* to provide for the social experiences for which different layers of the community have nostalgia. However, different layers of the community should be encouraged not only to accommodate, but to celebrate the activities and events of other layers of the community, and to see all activities and events at the Live Site as a source of community pride contributing to *community self-esteem*. This *family model of community cohesion* underpins the ‘*Places to People*’ strategy suggested to engage communities with Live Sites (illustrated in figure 3.1.4i).

Figure 3.1.4i shows that Live Sites can bring the heritage of other places (the light blue ovals in the diagram) to the local community to satisfy nostalgia for a range of social experiences that various layers of the community may have. Such nostalgia might be for the social experience of snowboard or dance participation, or for football spectating or watching a Shakespeare play. In each case, creating the type of place around the Live Site in which nostalgia for the particular social experience can be satisfied is likely to primarily serve specific layers of the community. However, once activities or events are brought to the local community through the Live Site, the community as a whole (the dark blue circle in the diagram) should be encouraged to embrace and celebrate them in an inclusive way as a source of community pride and *community self-esteem*.

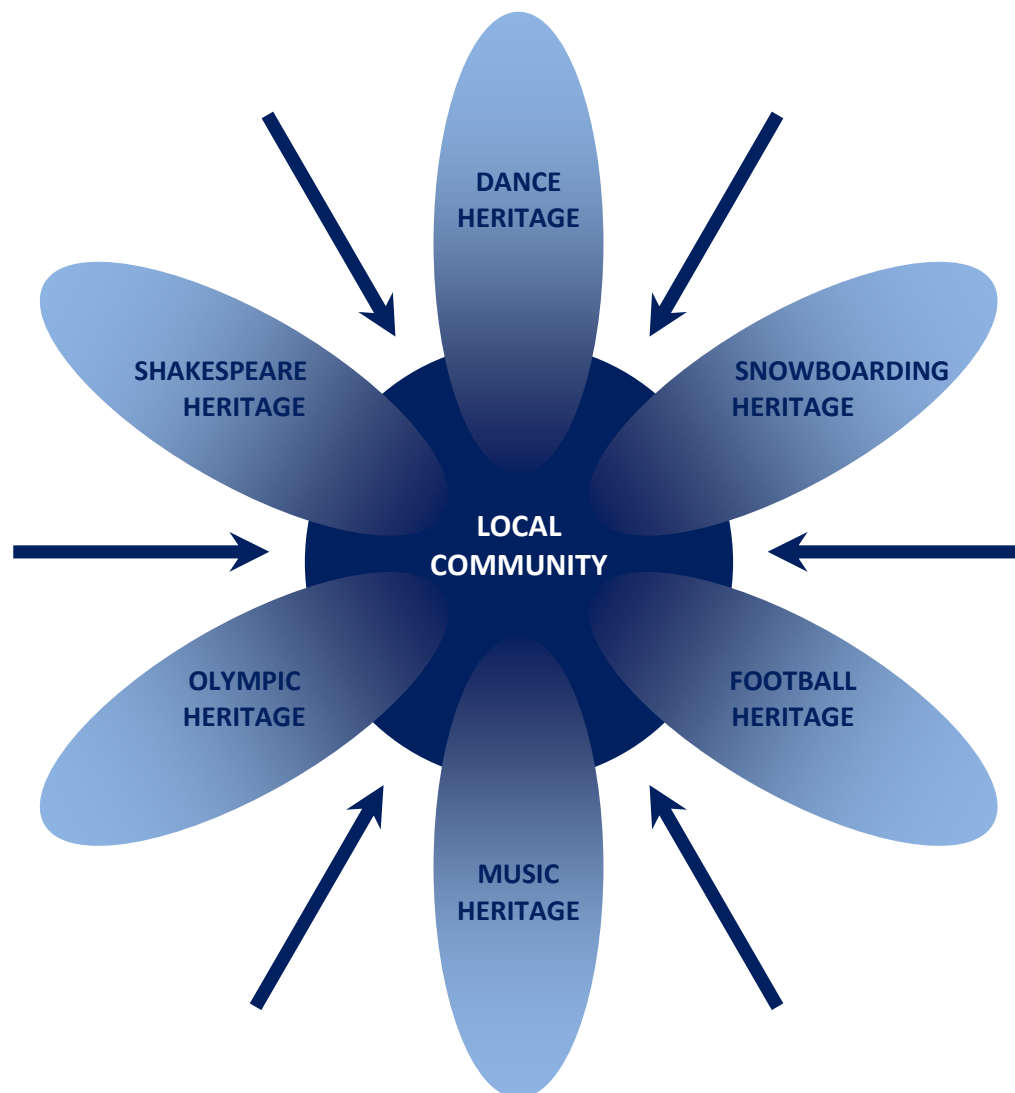


Figure 3.1.4i: Illustration of the “Places to People” strategy suggested to generate community outcomes from Live Sites

### 3.2) THE DEVELOPMENT OF PUBLIC HEALTH OUTCOMES FROM LIVE SITES

There were 23 sources included that were relevant to this area. The inductive thematic analysis led to the emergence of 16 themes, with the following three consolidated higher order themes being used to structure the analysis that follows:

- Attraction and Exposure
- Interaction and Partnership
- Programming and Content

The quality appraisal of the 23 sources is presented in table 3.2i. Of these sources, 18 included some analysis of research or secondary evidence or literature, whilst 13 were published in refereed journals, five were research reports, two were descriptive reports, and two were book chapters. As in section 3.1, this suggests that the quality of these sources is generally good, although this section does contain less peer-reviewed work and more commentaries. The sources fall into two broad areas: (a) those about screens or outdoor media (11 sources) or those about public health or public health communications (12 sources). As such, there is a much clearer direct relevance in this section as compared to section 3.1.

The previous section noted that community outcomes from Live Sites are only possible once communities are positively engaged with the Live Site. As such, the positive engagement of local communities is a *pre-requisite step* to using Live Sites to generate community outcomes. The same is also true of the use of Live Sites to generate public health outcomes, perhaps even more so. If communities' first experiences of Live Sites are of the Live Site being overtly used to modify their behaviour or to tell them what to do, then they are likely to immediately disengage from the Live Site, seeing it as a political instrument rather than a community asset. Consequently, the use of Live Sites to generate public health outcomes should only be attempted once the community is positively engaged with the Live Site, and even then, the use of the Live Site for public health outcomes should be carefully integrated with an ongoing strategy to retain the engagement of the local community.

The various periodic reports from the BBC Live Sites around the country (e.g. BBC, 2003; Chapman, 2009; Heathorn, 2009) note that the screens broadcast in two modes: ambient mode ('normal' setting, often with rolling text and with sound set to a low volume audible at around 30 yards) and event mode (broadcasting events designed to be watched by a static audience, and audible to all those in sight of the screen). However, these two categories do not adequately capture the basic variation in the operation of the screens, as in both ambient and event mode the screen may either be broadcasting content designed to be passively viewed, or may be broadcasting interactive content which invites active participation. As such, in the discussion that follows four screen modes will be referred to: (i) ambient passive (e.g. news content), (ii) ambient interactive (e.g. passers by playing games on the screen), (iii) event passive (e.g. watching Last Night of the Proms), and (iv) event interactive (e.g. a group aerobics session).

#### 3.2.1) ATTENTION AND EXPOSURE

Evidence returned in the review (Fitzgibbon et al, 2007; Snyder, 2007; Weed et al, 2009; Wilson, 2007) and a wide range of the broader literature suggests that messages should be targeted at particular groups rather than being generically constructed for the population as a whole, and this has long been a part of health promotion practice. However, the potential problems of an over-elaborate and extensive segmentation of target groups are also noted, particularly in logistical and cost terms (Fitzgibbon et al, 2007; Snyder, 2007). Given that the Live Sites, in ambient mode at least, will be broadcasting to a generic audience, target groups can only be segmented in the broadest terms.



AUTHOR (DATE)	PUBLICATION TYPE	TOPIC	LOCATION	EVIDENCE
Acacia Avenue (2005)	Research Report	Outdoor and radio media	UK	Primary Research
Aziz and Lothe Salvesen (2008)	Refereed Journal	Public health communication	South Africa	Primary Research
BBC (2003)	Research Report	Manchester Big Screen	Manchester, UK	Primary Research
Brownlee (2005)	Research Report	Digital Screens	UK	Primary Research
Chapman (2009)	Report	Middlesbrough Big Screen	Middlesbrough, UK	Commentary
Cho (2008)	Refereed Journal	Campaign Media	USA	Secondary Data Analysis
Dorfman & Wallack (2007)	Refereed Journal	Public health communication	USA	Theoretical Discussion
Evans et al (2007)	Refereed Journal	Public Health Communication	USA	Primary Research
Fitzgibbon et al (2007)	Refereed Journal	Public Health Communication	USA	Primary Research
Heathorn (2009)	Report	Plymouth big screen	Plymouth, UK	Commentary
Hornik & Kelly (2007)	Refereed Journal	Public Health Communication	USA	Narrative Review
James (2003)	Research Report	Outdoor Media Campaign	London, UK	Primary Research
Kumra (2006)	Refereed Journal	Outdoor advertising	USA	Primary Research
Mastro & Atkin (2002)	Refereed Journal	Outdoor advertising	USA	Primary Research
Mckinnon (2007)	Refereed Journal	Public Health Communication	USA	Commentary
Nevarez, J. (2006).	Refereed Journal	Urban screens	USA	Commentary
Redhead & Brereton, (2009)	Book chapter	Urban screens	Brisbane, Australia	Primary Research
Schieck et al (2008)	Book chapter	Urban Screens	UK	Primary research
Snyder (2007)	Refereed Journal	Public Health Communication	USA	Meta-analysis
Taylor, K. (2006)	Refereed Journal	Urban screens	Manchester, UK	Commentary (some primary research)
Viswanath & Bond (2007)	Refereed Journal	Public Health Communication	USA	Narrative review
Weed et al (2009)	Research Report	Olympic physical activity sport and health legacies	World Wide	Systematic review
Wilson (2007)	Refereed Journal	Public Health Communication	USA	Narrative Review

Table 3.2i. Summary of Quality Appraisal for Included Sources Relating to Developing Public Health Outcomes

Wilson (2007) describes the American Dietetic Association's segmentation of three groups (ADA, 2005) based on opinion polls of beliefs and behaviours:

- "I'm already doing it" – individuals who are knowledgeable about nutrition and already eating healthfully and exercising (38% of American population).
- "I know I should but..." – knowledgeable about nutrition and believe healthful eating is important, but do not necessarily practice healthful behaviours (30% of American population)
- "Don't bother me" – don't care or are in denial about health, or have other concerns they believe are more crucial; unlikely to pay attention to health information or campaigns (32% of American population)

Although this segmentation is based on the American population, the segments resonate with the Transtheoretical (Stages of Change) Model (TTM) (Prochaska, 1979) that is widely used in the UK: the "Don't bother me" group equates to the pre-contemplation stage, where people do not have positive attitudes towards healthful behaviours; the "I know I should but..." group equates to the contemplation and preparation stages, where there has been a shift in attitudes, but behavioural change has not yet occurred; and the "I'm already doing it" group equates to the action and maintenance stages, where the focus is on continuing to develop healthful behaviours. Distilling the TTM into these three segments is useful because they each comprise a significant proportion of the population, and so even where targeted messages are broadcast to a general audience, they will still be relevant to roughly one in three of the population. Of the segments, "I know I should but..." is perhaps of particular salience, as they are more receptive to messages than the "Don't bother me" segment, and even small changes could have a significant impact, unlike the "I'm already doing it" segment among whom change is not necessary. However, Snyder's (2007) meta-analysis notes that this segment can be particularly frustrating for campaigns that focus on providing health information, as what has been termed a *knowledge gap* or *communication effects gap*, develops because people often do not act upon what they know.

Evidence on big screens supplements this segmentation. Acacia Avenue (2005) examined how people interact with outdoor media (essentially screens in ambient passive mode) and identified five groups, across which two broad behaviours can be identified. Firstly, two of the groups passed by the screen whilst focussed on other thoughts and tasks, and were thus pre-occupied and did not engage with screen content, something that Schieck et al (2008) also noted. Acacia Avenue (2005) found that, while these groups could be 'jolted out' of what they were pre-occupied with, unless the content was directly relevant or interesting, they would consider the interruption to be an intrusive disturbance. Taylor (2006) and Nevarez (2006) also found this reaction among some groups, with Taylor (2006) noting that it is important that screens are regarded as a positive intervention rather than an unwanted interference.

The second behaviour found by Acacia Avenue (2005), and also by Schieck et al (2008), was of people looking to their environment for stimulation while in transit or lingering, with Schieck et al (2008) also noting that this behaviour could be encouraged if the place itself was conducive to 'pause time' rather than being a busy thoroughfare. Groups exhibiting this behaviour were not only open to a range of content, but in some cases were actively looking for something to stimulate their senses or capture their attention. As such, rather than being the unwanted interference noted by Taylor (2006), for these groups the screens were seen as a welcome distraction or stimulation in an otherwise dead time period (Acacia Avenue, 2005).

The above insights seem to suggest that Live Sites in ambient passive or ambient interactive modes might have some potential to communicate positively with the "I know I should but..." segment if they are looking to their environment for stimulation or distraction. The least effective approach would be to seek to

address the “Don’t bother me” segment with health messages while they are pre-occupied and focused on other tasks.

Wilson (2007) suggests that it is important to consider the extent to which target groups process health messages, something that is outlined in the “Elaboration Likelihood Model” (ELM) developed in communication studies (Petty & Cacioppo, 1986). This model focuses on how far those receiving messages elaborate on them, or whether they process such messages in a more peripheral way. The ELM is illustrated in figure 3.2.1i.

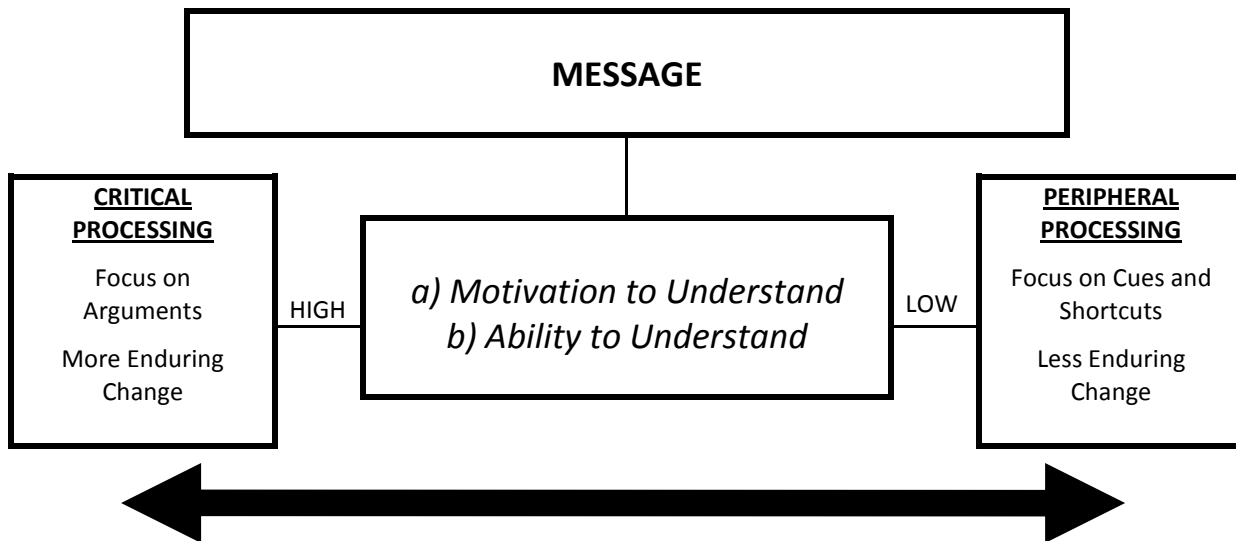


Figure 3.2.1i: The Elaboration Likelihood Model (adapted from Petty & Cacioppo, 1986)

The ELM suggests that the way an individual processes a particular message depends on both their motivation and their ability to understand the message and the issues associated with it. Those who are both motivated and able to understand the message will critically engage with its content and focus on the arguments put forward. If they find the message persuasive, it is likely to result in a more enduring behaviour change. Those who are either not motivated to understand a message, or unable to do so, will engage in a much more peripheral way with its content and will focus only on cues or shortcuts to evaluate the message rather than the detail of the arguments presented. Changes in behaviour brought about by peripheral processing are less likely to be enduring. However, Wilson (2007) notes that the ELM should be seen as a continuum, with most people using a mix of critical and peripheral processing to understand any one message.

Much of the evidence returned for this part of the review addresses issues related to the ELM (Acacia Avenue, 2005; Aziz & Salvesen, 2008; Cho, 2008; Evans et al, 2007; Fitzgibbon et al, 2007; Hornik & Kelly, 2007; Kumra, 2006; Mastro & Atkin, 2002; Redhead & Brereton, 2009; Snyder, 2007; Taylor, 2006; Viswanath & Bond, 2007), and as such it appears to be a useful framework to use in examining how Live Sites might best communicate public health messages. One key point, however, is that people’s motivation and ability to understand messages might not solely be linked to the message itself. Issues such as the screen mode or the behavioural context might also be important. For example, when a screen is broadcasting in ambient passive mode, it may be very difficult for people to engage with the messages in anything other than a peripheral way. Similarly, if people are pre-occupied with other thoughts or tasks, then a more peripheral processing of messages is likely.

Brownlee (2005) used eye-tracker technology to study the way in which people engaged with screens in ambient passive mode. This involved fitting people with a pair of glasses that track where their eyes look, and then leaving them to go about their business. Brownlee (2005) found that in shopping malls, people would look at the screen once or twice a minute for an average of two seconds, although if they found the message to be relevant, they would look for longer. In bars and train stations, a similar pattern emerged, although there were often longer looks (up to 60 seconds) in 'distracted' times such as lulls in conversations in bars, or while waiting for train announcements. Taylor (2006), using a less precise direct observation method at the Manchester screen, noted that most people ignored the screen, with a small minority paying variable amounts of attention. However, it is likely that direct observations would miss the 'quick check' pattern of engagement picked up by Brownlee's (2005) eye-tracker study. Both studies suggest two different forms of engagement: a 'quick check' during times when people are focussed on other tasks, and a longer engagement when they have time to be distracted. This resonates with Acacia Avenue's (2005) findings and suggests that screens in ambient mode need to strike a balance between providing rapid attention grabbing material (1-2 seconds), and more sustained material (up to 60 seconds) for those looking to be distracted. In terms of the ELM, in the former case attention grabbing material will need to rapidly provide cues and shortcuts to encourage peripheral processing of messages (encouraging critical processing is highly unlikely to be successful in this context). For the longer 'distracted' periods of up to 60 seconds, it may still be likely that individuals will not have the motivation or ability to engage in more critical processing, and so the focus should be on producing the best possible messages for peripheral processing that might invite more critical processing at another time. However, noting the earlier warnings of Acacia Avenue (2005) and Taylor (2006), care is also needed to ensure that screens avoid being an unwelcome interruption for those who do not wish to be disturbed.

Many of the sources comment on the need for repeated exposure to messages (Acacia Avenue, 2005; Brownlee, 2005; Evans et al, 2007; Fitzgibbon et al, 2007; Hornik & Kelly, 2007; Snyder, 2007), with Hornik and Kelly (2007) noting that while exposure alone may not be sufficient for a successful public health campaign, it is a necessary element if a campaign is to be successful. In public health, two elements of exposure are noted: multiple exposure and exposure through multiple channels (Evans et al, 2007; Hornik & Kelly, 2007; Snyder, 2007). This suggests that any strategy seeking to use Live Sites as an intervention as part of a public health communication campaign will need to be: (a) repeated at different times and on different occasions on the Live Site itself; (b) integrated with a wider strategy to expose the public to the same messages via other communication routes. However, it may be that the ability of Live Sites to be *community chameleon facilities* that bring different 'Places to People', as discussed in the previous section, will mean that the same messages integrated into screen content across the range of Live Site modes and events will enhance the perception of messages coming from a range of different sources and channels. This is what Snyder (2007) refers to as multiple execution, where the same underlying public health concept or message is conveyed within a range of different content. Hornik and Kelly (2007) and Snyder (2007) note that high exposure of public health messages increases the likelihood of health messages being learned and remembered, something that Acacia Avenue (2005) and James (2003) also note in their work on outdoor media. However, Hornik and Kelly (2005) also note that multiple exposure increases the likelihood that target groups will be exposed to public health messages at a point in time when they are ready to receive them. As such, while an individual may not be motivated to understand a message if s/he is exposed to it while focused on other tasks, if s/he is exposed to the same message at a time when s/he is looking for distraction, the message is more likely to be processed as the motivation to understand is likely to be higher. Multiple exposure may also mean that messages that are peripherally processed in the first instance may be more critically processed at a later time, and consequently be more likely to lead to enduring change.

The evidence returned from the public health literature debates the extent to which messages should focus on information and argument, or on creating an emotional attachment (Aziz & Salvesen, 2008; Fitzgibbon et al, 2007; Hornik & Kelly, 2007; Mastro & Atkin, 2002; McKinnon, 2007; Snyder, 2007; Wilson, 2007). Evidence provided by McKinnon (2007), Fitzgibbon et al (2007), and Mastro and Atkin (2002) suggests that there is a need to create an emotional affinity with the message, with McKinnon's (2007) evaluation of the VERB physical activity programme in the USA advocating creating messages that offer "something beyond rational benefits to create an emotional affinity" (p.53) thus seeking to "use persuasion beyond education" (p.54). In making this point, McKinnon (2007) suggests that public health campaigns may be hindered by using a cold, rational, factual approach, and that an emotional message may be more effective. Similarly, Fitzgibbon et al (2007) and Mastro and Atkin (2002) both note the success of campaigns that seek to create a link between an enviable or desirable lifestyle and behaviours relating to physical activity, not smoking and alcohol consumption, whilst Aziz and Salvesen (2008) note the need for individuals to be able to identify with campaigns. On a related note, Hornik and Kelly (2007) suggest that those constructing campaigns often make the mistake of thinking that pleas for good behaviour based on medical justification are effective messages, whereas stark medical explanations are often not effective behaviour change strategies. However, Wilson's (2007) review suggests that an overly emotional message may detract from the content and be less persuasive, but also that informational messages are better suited to delivery mediums that allow for greater elaboration and reflection on content. Supporting this view, Snyder's (2007) meta-analysis indicates the importance of information and explanation, particularly where the information may be new to the target group, or may contain details on how to go about making changes. However, Viswanath and Bond (2007) note that over-complexity can make it difficult for the audience to comprehend and act on health information.

The issue of emotion is closely linked to the use of *fear appeals*, an example of which is the inclusion of images of the potentially extreme health consequences of smoking on cigarette packets. Snyder's (2007) meta-analysis suggests that messages evoking positive emotions are likely to have greater success than those focussing on fear. However, Wilson (2007) draws on a specific meta-analysis of data relating to fear appeals (Witte & Allen, 2000) to note that the situation might be more nuanced, with fear appeals being effective in situations where the audience is convinced that the health threat is severe and immediate and that there is a course of action available to them to overcome that threat. In essence, Wilson (2007) concludes that fear appeals work when people critically process messages and come to the conclusion that they are personally susceptible to the health threat.

The final issue relating to information is whether campaigns should acknowledge points of view contrary to those presented in the campaign. Certainly, as the next section will show, a number of sources (Dorfman & Wallack, 2007; Hornik & Kelly, 2007; Snyder, 2007) suggest that a competitive advertising environment can be a challenge for health campaigns. Again, Wilson's (2007) review suggests that the evidence calls for a nuanced view of the relative impact of one-sided arguments, two-sided messages that merely acknowledge the opposing view, and two-sided arguments that actively refute the opposing view. She quotes a meta-analysis (O'Keefe, 1999) that, in summary, shows that:

"..all the research on this topic found that refutational 2-sided messages are far more persuasive than are 1-sided messages, whereas nonrefutational 2-sided messages are actually less persuasive" (Wilson, 2007: 17)

The implication here is that in situations where it is possible to detail the weaknesses of opposing arguments, a two-sided message should be used, otherwise only a one-sided approach should be used. The implication of this and the preceding paragraphs for Live Sites is most usefully explored by relating the

arguments to the ELM. The weight of evidence suggests that in situations where more peripheral processing is likely to take place (particularly during the screens' ambient passive mode, but potentially also on some occasions when the screen is broadcasting in ambient interactive and event passive mode), a positive one-sided message that focuses on emotional affinity should be used. In contrast, in situations where critical processing is more likely (particularly during event interactive mode, but also on some event passive and ambient interactive occasions), information focused, two-sided messages that explore and refute contradictory points of view, and which may include fear appeals, are likely to be more effective.

### 3.2.2) INTERACTION AND PARTNERSHIP

Key determinants of the way in which audiences interact with public health campaigns are the credibility and likability of the 'source' (Aziz & Salvesen, 2008; Dorfman & Wallack, 2007; Evans et al, 2007; Hornik & Kelly, 2007; Snyder, 2007; Wilson, 2007). In the case of Live Sites, the source may be either the person, people or organisation conveying messages for a particular campaign, or on a broader level, the Live Site itself might be regarded as the source.

Wilson's (2007) review, drawing on a meta-analysis of source effects (Wilson & Sherrell, 1993), notes that at a general level, issues relating to the credibility and likability of sources are likely to be more salient when there is a focus on cues and shortcuts due to more peripheral processing. However, further analysis suggests that, although there is this general tendency, the likability of the source is particularly significant when motivation and ability to understand the topic is low within peripheral processing (Aziz & Salvesen, 2008; Wilson, 2007), and that the credibility of the source, while being a processing shortcut, is more significant if the processing includes at least some critical elements. Different dimensions to credibility and likability are also noted (Wilson, 2007). A source may be credible on the basis of expertise (e.g. a doctor), or on the basis of trustworthiness (e.g. celebrity chefs). In terms of likability, simple physical attractiveness has been demonstrated to enhance likability, as has attitudinal similarity (i.e., does the source "think like me"?) (Evans et al, 2007).

The implications of these insights for Live Sites are that where interaction and attention is low in ambient passive mode, a likable, physically attractive source that is perceived to have similar attitudes to the target audience is likely to be most effective. Conversely, where interaction and attention is higher in event interactive mode, a credible source perceived to be expert and trusted will be more effective. This suggests, for example, that live cooking events using celebrity chefs may be an effective interactive Live Site event for promoting nutritional messages (see picture 7).



Picture 7: FlavourFest Cookery Theatre in Plymouth



Picture 8: Market Street at Plymouth FlavourFest

On a broader level, the Live Site itself might be considered to be the ‘source’ of public health messages, and this adds a further credibility dimension. Dorfman and Wallack (2007), Hornik and Kelly (2007) and Snyder (2007) all note the problems for public health campaigns of what Hornik and Kelly (2007; 9) term a “competitive advertising environment”, where campaigns for more healthful eating and reducing alcohol consumption face competition from the commercial sector, both in terms of advertising volume, but also in terms of messages that can often be constructed to deliberately muddy the waters of health messages. While it is recognised that there is little in the literature about the optimal strategies to counter commercial advertising and marketing (Snyder, 2007), some of the insights regarding refutational two-sided messages discussed earlier are relevant. However, there is a clear suggestion that the ‘source credibility’ of a Live Site will be undermined if on some occasions it is seeking to promote healthful eating habits or reduced alcohol consumption, whilst on others it is hosting events sponsored by beer or fast-food brands (Hornik & Kelly, 2007; Snyder, 2007).

On a more positive note for relationships with the commercial sector, there is widespread recognition in the sources that the immediate commercial environment (in this case, the businesses immediately surrounding the Live Sites, or organisations or commercial concessions that might be present for events) can play a positive role in helping achieve positive public health outcomes (Dorfman & Wallack, 2007; Fitzgibbon et al, 2007; Viswanath & Bond, 2007). Linked to the previous paragraph, there is wide-ranging evidence that suggests that the social environment contributes significantly to the choices people are able to make about their health (Dorfman & Wallack, 2007; Snyder, 2007), and that the availability of more healthful options in terms of, for example, food shopping, can be an important factor in promoting behaviour change (Fitzgibbon et al, 2007; Viswanath & Bond, 2007). In particular, Viswanath and Bond (2007; 23) note that it is not enough to simply ensure that audiences are persuaded by public health messages, they must also be provided with the “material resources to act on the information”. Furthermore, the closer such resources are to the source of the message, the more likely a persuaded individual will be to act to change their behaviour. As such, Live Sites should ensure: (a) that they co-operate with local businesses to ensure that relevant traders know when an event or message that their products or service will be able to support will be featured on the screen, and; (b) that relevant organisations and commercial concessions are invited to attend events at the Live Site to support public health outcomes. In this respect, Picture 8 illustrates the range of food stalls that formed a Market Street at the Plymouth Live Site’s FlavourFest event, and permanent businesses around the Live Site should also be alerted to these types of opportunities. Health clubs in the vicinity of Live Sites, for example, could be alerted to events such as the Hoop Hop at the Middlesbrough Live Site (see picture 9), at which they could offer introductory taster sessions to various similar fitness classes. Similarly, local cycle retailers could be alerted to events such as the Mountain Bike Festival at the Derby Live Site (see picture 10) and be encouraged to offer discounts or try-before-you-buy offers. Previous research (e.g. Bull & Lovell, 2007; Chalip, 2004) has shown that local businesses are often keen to support events in this way, and to contribute to event ‘theming’ (thus enhancing the strategy of bringing *‘Places to People’* – see section 3.1), if they are given the opportunity and advance notice to do so. A final note here is that Snyder (2007), together with Dorfman and Wallack (2007) and Fitzgibbon et al (2007), cite widespread and significant evidence across all health issues that events such as these that invite people to adopt a new behaviour or replace an existing behaviour, are far more successful than campaigns that simply ask people to ‘give up’ something. So, for example, healthy weight messages should focus on the physical activities or foods that people might be encouraged to adopt or consume, rather than on messages that ask people to reduce particular foods or to stop being inactive.





Picture 9: Hoop Hop at the Middlesbrough Live Site



Picture 10: Mountain Bike Festival in Derby

A further role for commercial or third sector partners suggested by a range of sources (Aziz & Salvesen, 2008; Fitzgibbon et al, 2007; Kumra, 2006; Snyder, 2007) is in developing public health commercials or campaigns “cloaked as art” (Kumra, 2006; 5) and integrating public health messages into entertainment features (c.f. Aziz & Salvesen, 2008). Notwithstanding the potential noted by Wilson (2007) for distraction from the message, Kumra (2006) notes that the most effective communication often takes place when people don’t realise they are being influenced, and the integration of public health messages into more entertainment focused screen content is likely to be an effective part of the types of multiple exposure strategies discussed in the previous section. Such integration also offers the opportunity to focus on likable sources that may have resonance for those employing more peripheral processing of messages (see discussions in section 3.2.1). This may be particularly effective among the “Don’t bother me” segment.

A further advantage of more entertainment focussed content is in its potential to engage communities with the Live Site, something that is essential if Live Sites are to generate public health outcomes (see section 3.1.1). Evidence suggests (Acacia Avenue, 2005; Cho, 2008; Redhead & Brereton, 2009; Schieck et al, 2008; Taylor, 2006) that Live Sites can play a role in promoting social interaction, with Schieck et al (2008) demonstrating that interactive games on street screens encourage people to stop, observe and eventually share the experience with others, who in some cases were friends, but on other occasions were strangers. Encouraging interaction between friends can be significant because it may create a shared memory (Acacia Avenue, 2005), which is likely to lead to later discussions of the memory at another time. This can lead to messages that were initially processed in a peripheral way, being more critically processed on another occasion. Among strangers, Schieck et al (2008) found that people preferred to look first to see what was happening before deciding to engage, which supports Redhead and Brereton’s (2009) suggestion that screens should offer initial low commitment interaction that is quick and enjoyable. Once strangers have decided to stop and engage, both Schieck et al (2008) and Taylor (2006) found they would interact and or talk with each other, with interaction ranging from looking around to see if others had noticed screen content and exchanging smiles (particularly when the screen is in ambient passive mode), to more detailed conversations about the screen content (more prevalent in ambient interactive mode). Similarly, evidence from a study of political campaign advertising (Cho, 2008) noted that a clear outcome of such campaigns was that people sought out more information on the campaign topic, and deliberated over the topic more with their friends and colleagues.



A range of evidence (Hornik & Kelly, 2007; Kumra, 2006; Snyder, 2007; Wilson, 2007) suggests that the promotion of discussion about an issue can be important in public health campaigns. Hornik and Kelly (2007) noted that social interaction promoted the discussion and, more importantly, the diffusion of health messages through social networks, while Wilson (2007) suggests that the discussion of an issue promotes a move from peripheral to more critical processing, and thus increases the likelihood that any behaviour change that results will be more enduring. Snyder (2007) suggests that campaign messages should be aimed both directly at populations, and at those who have influence within populations, thus promoting discussion and potentially more critical processing which is more likely to lead to more enduring change. This is further re-inforced by Kumra (2006; 3) who suggests that increasingly people “determine what they think is best by finding out what other people think is best”. It would appear, therefore, that a key public health role for Live Sites may be in their potential to promote wider discussion and deliberation of issues affecting public health.

### 3.2.3) PROGRAMMING AND CONTENT

In 2003, the Outdoor Advertising Association (OAA) undertook a study, “the POW campaign”, to examine the effectiveness of outdoor advertising (including digital screens). They ran content over the summer in London containing the words POW, ZAPP and BAM, and then commissioned a recall study among the public. This study showed that 39% of all adults in London recalled the content, rising to 43% among 16-24 year olds (James, 2003). This suggests that impactful and eye-catching content does register with a significant proportion of the population, albeit most likely through a peripheral form of processing. The OAA study also asked more general questions about outdoor media, and found that 81% of adults said they “noticed a lot of advertising when they were out of the house”, with a further 77% saying that outdoor media “gave them something to look at when they were out and about”. This substantiates and reinforces the Acacia Avenue (2005) findings discussed earlier which noted that people are often looking to their environment for stimulation when they are in transit or lingering.

The OAA’s POW campaign suggests that short eye-catching content can be effective when screens are in ambient passive mode, and this supports the similar conclusions in section 3.2.1. Kumra (2006) suggests that even the most straightforward tactic can be effective if it incorporates the element of surprise, and gives the example of non-traditional placement whereby content is projected onto the pavement instead of a wall or screen. In this respect, a really straightforward attention grabbing tactic for Live Sites in ambient passive mode might be to use a moving projection onto the pavement comprising simply the words “LOOK UP!”. People will be attracted to the unusual nature of the moving message (Kumra, 2006), and would thus read it and inevitably follow the instruction to look up at the screen. The challenge then, of course, is to provide content on the Live Site screen itself that is of sufficient quality and interest to be seen as a welcome interruption rather than an annoying disturbance (Taylor, 2006).

Taylor (2006), Nevarez (2006) and Kumra (2006) each describe one of the most well-known digital screen content projects, ‘The 59<sup>th</sup> Minute’, which screens in the last minute of every hour in Time Square in New York. Taylor (2006; 3) describes this project as:

“...an effective example of scheduling, duration and marketing. Established as a regular exhibition point in 2000, the concept is highly memorable; an artist’s film, a minute in duration, will play on the NBC Astrovision screen in the final minute of every hour. An active audience in the area knows exactly when to look up, and if arriving early can wait with confidence”

The implications here for using Live Sites for public health messages are that if a similar project (‘the first minute’, ‘the last minute’, or similar) was developed for Live Sites in ambient passive mode, but also

advertised more widely around the city centre and in other media – e.g. “See What Happens in The Last Minute” – it would likely generate the type of active audience described by Taylor (2006) that would arrive and wait for the content. The opportunity is to screen public health content immediately prior to the screening of ‘the last minute’, when a captive audience is likely to be in the vicinity of the screen with little else to occupy their attention until ‘the last minute’ content is screened. As such, more people are likely to welcome the content as a distraction, and to use at least some critical elements alongside the more usual peripheral processing for content broadcast in this mode.

Of course, the key to achieving outcomes from partnering public health content with something like ‘the last minute’, is that the content of ‘the last minute’ must be of such sufficient and consistent high quality to make people want to make time to see it. It is not the place of this review to comment on what such content might be, but an example provided by Kumra (2006) and Taylor (2006) is the use of time-lapse photography, particularly if this features aspects of the life of the area in and around the live site (the last 24 hours in one minute is one suggestion), which may be slowed for one or two seconds (perhaps including a verbal comment) at various parts in the one minute broadcast.

Another suggestion for content is to ‘screen the screen’. This suggestion is derived from the work of Acacia Avenue (2005), that suggests that the formation of positive memories can be accelerated by repeating them. As such, Live Sites could screen footage of the feature activities in and around and incorporating the screen that bring ‘Places to People’ (see, *inter alia*, Pictures 1,2, 7 and 8) in event passive and event interactive mode. This could both re-inforce positive memories of the screen, and entice people to come to future Live Site events.

Taylor (2006) comments on a tension between programming community content (from schools, youth groups and other community organisations) on the screen and maintaining quality control over content. Undoubtedly, providing for community content should be a large part of the community engagement strategy for a Live Site (see section 3.1), but it may be that one way to ensure that the most visible content is of the highest quality is to use less-high quality content provided by the community when the screen is in ambient passive mode (and thus less visible), rather than as an event feature. As such, the screening of this content would be seen as a strategy to engage, enthuse and reward those providing it, rather than to engage a more general audience.

A final note of caution on programming is sounded by Nevarez (2006) and Kumra (2006), who each comment on the potential for the screen to come to be regarded negatively as providing only ‘visual pollution’. This implies that the types of attention grabbing tactics described above should be used sparingly to avoid reaching saturation point. Once again, the concept of ‘the last minute’ as described by Taylor (2006) is a good example of this, building anticipation for a single minute of high quality content, rather than seeking to focus on constantly attracting and maintaining attention.

#### 3.2.4) A MODEL FOR DEVELOPING PUBLIC HEALTH OUTCOMES FROM LIVE SITES

Much of the discussion in this section has noted how the evidence returned relates to the Elaboration Likelihood Model (ELM) illustrated earlier in figure 3.2.1i. Throughout the discussions it has become apparent that issues such as the types of sources used for messages via Live Sites and the use of informational versus emotional messages require a more nuanced conclusion than a single best practice approach. As such, figure 3.2.4i applies the ELM specifically to the use of Live Sites for public health outcomes, and would seem to provide a very neat summary of the implications of the evidence discussed in this section.

Figure 3.2.4i shows that the Live Sites' event interactive screen mode is the most likely to result in critical processing of messages, but that there is also potential for critical processing in the event passive and ambient interactive screen modes. In these screen modes, target segments are more likely to have both the motivation and the ability to understand messages. The public health goals for Live Sites broadcasting messages designed for critical processing are to: (a) provide the latest health information for those looking for it; (b) prompt healthful behaviours among those who know they should change. These goals should relate to the "I'm already doing it" and the "I know I should, but..." segments respectively. Summarising the discussions throughout sections 3.2.1, 3.2.2 and 3.2.3, the key strategies for achieving these goals with these target groups through messages designed to be critically processed are to use a credible source presenting a refutational two-sided message focusing on medical and health related information that may include fear appeals.

Conversely, figure 3.2.4i also shows that the Live Sites' ambient passive screen mode is the most likely to result in peripheral processing of messages, but that peripheral processing may also take place in the event ambient interactive and event passive screen modes. In these screen modes, target segments are less likely to have either the motivation or the ability to understand messages. The public health goals for Live Sites broadcasting messages designed for peripheral processing are to: (a) prompt healthful behaviours among those who know they should change; (b) promote more positive attitudes to healthful behaviours among those disengaged from health messages. These goals should relate to the "I know I should, but..." and the "Don't bother me" segments respectively. Summarising the discussions throughout sections 3.2.1, 3.2.2 and 3.2.3, the key strategies for achieving these goals with these target groups through messages designed to be processed peripherally are to use a likable source presenting a one-sided message that does not include fear appeals and that focuses on creating a positive emotional association between the health behaviour being promoted and desirable lifestyle elements.

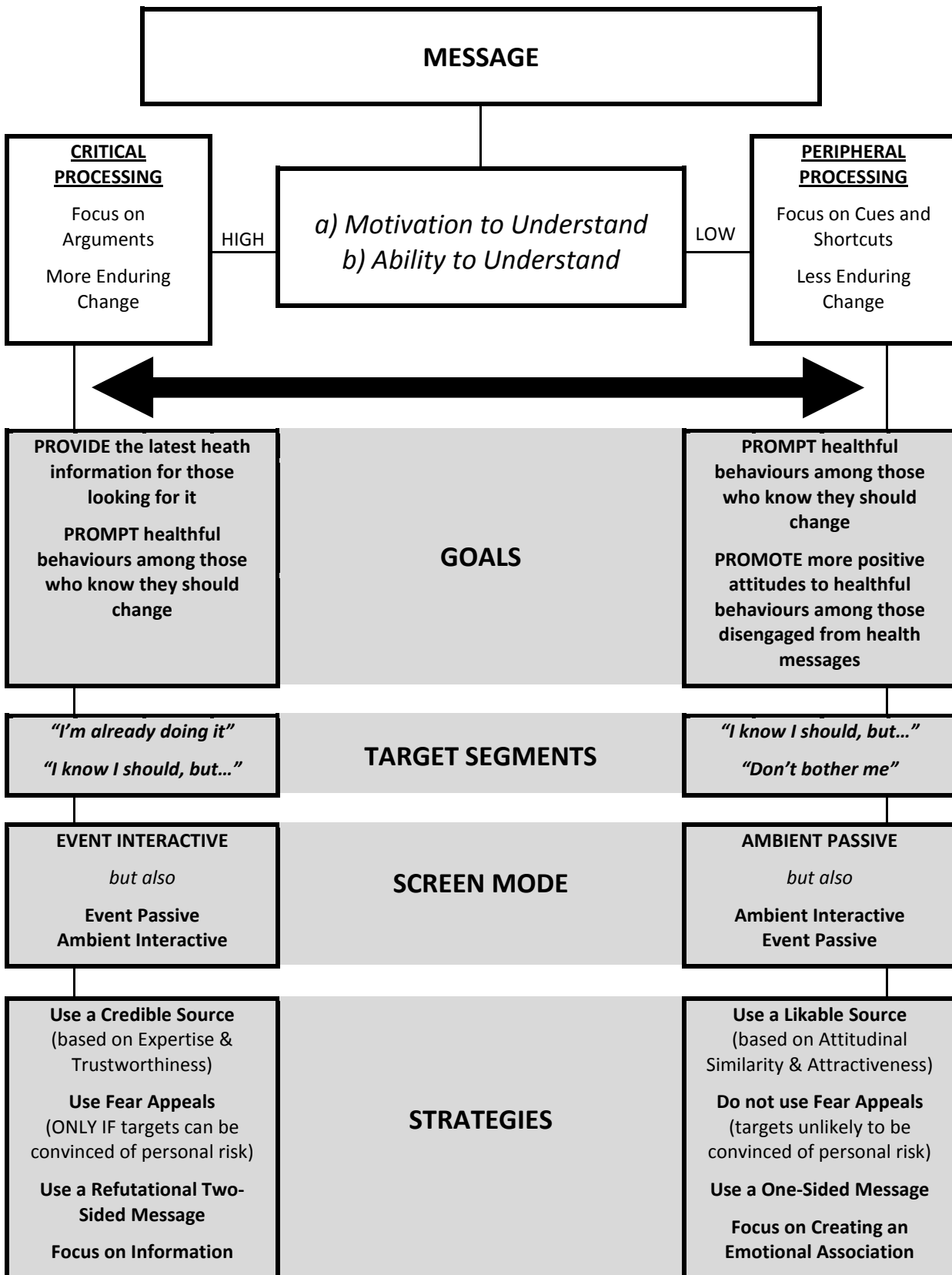


Figure 3.2.4i: Using Live Sites for Public Health Outcomes: A Strategic Approach based on the Elaboration Likelihood Model

#### 4) INTERPRETATION OF IMPLICATIONS OF RESULTS FOR LIVE SITE STRATEGIES

This section summarises our interpretation of the implications of the review results described in section 3 for the development of strategies to achieve community and public health outcomes from Live Sites. Here we are seeking to interpret the *best evidence* available to suggest strategies that might be employed to leverage Live Sites for community and public health outcomes.

##### 4.1) DEVELOPING COMMUNITY OUTCOMES FROM LIVE SITES

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1. Evidence from a range of sectors suggests that there are pre-conditions that need to be met before any public policy outcomes can be leveraged from community interventions. As such:

- **THE POSITIVE ENGAGEMENT OF THE LOCAL COMMUNITY WITH A LIVE SITE IS A *PRE-REQUISITE STEP TO DEVELOPING STRATEGIES TO LEVERAGE COMMUNITY (OR PUBLIC HEALTH) OUTCOMES FROM LIVE SITES.***
- 

2. The evidence outlined in section 3.1.2 notes that the traditional approach to using facilities and community identities to leverage outcomes is to create an identity associated with the heritage of a specific place within a local community, and seek to attract people to that place. However, Live Sites offer the opportunity for a different strategy:

- **LIVE SITES CAN BRING *PLACES TO PEOPLE* BY USING SCREENS AND THEIR SURROUNDING ENVIRONMENT TO CREATE, FOR DIFFERENT OCCASIONS, DIFFERENT *TYPES OF PLACES* THAT WILL SATISFY THE VARYING DEMAND WITHIN THE LOCAL COMMUNITY FOR A RANGE OF SOCIAL EXPERIENCES.**

The *types of places* that might be created for different occasions include those in which the social experience of football spectating, snowboarding, beach festivals, Proms concerts, Mela festivals or Remembrance Day (see pictures 1-6 in sections 3.1.2 and 3.1.3) might be celebrated or remembered. Bringing these *Places to People* requires strategies that go beyond simply screening events on the Live Site screen. The area around the Live Site must also be thematically transformed to support the social experience of the event, thus providing for an experience that would not usually be available in the community setting.

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3. Linked to 2. above, evidence in section 3.1.2 suggests that the ability to bring *Places to People* puts Live Sites in a unique position to serve the community in which they are situated:

- **LIVE SITES CAN ACT AS *COMMUNITY CHAMELEON FACILITIES* TO PROVIDE FOR A WIDER RANGE OF LAYERS WITHIN THE COMMUNITY THAN MORE TRADITIONAL EVENTS, FACILITIES OR VENUES, THAT TEND TO BE LINKED TO A SPECIFIC PLACE WITH A SPECIFIC HERITAGE.**

Often community events, facilities or venues can be divisive within communities as they can be regarded as only serving particular layers within the community. However, as the list of potential

places that can be brought to local people given in 2. above shows, Live Sites can serve multiple layers with a range of different interests within the local community.

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4. The potential of Live Sites to act as *Community Chameleon Facilities* to serve multiple layers in the community should be developed to promote mutual responsibility and understanding between community layers:

- **LIVE SITES SHOULD BE USED TO PROMOTE A FAMILY MODEL OF COMMUNITY COHESION, IN WHICH DIFFERENT LAYERS OF THE COMMUNITY ARE NOT ONLY ACCOMMODATING OF THE ACTIVITIES OF OTHER COMMUNITY LAYERS, BUT ACTIVELY CELEBRATE THOSE ACTIVITIES AS A SOURCE OF COMMUNITY PRIDE.**

A *Family Model of Community Cohesion* is one in which different layers of the community take an interest in and celebrate the activities of other layers because they are part of the same community – much as a grandmother may take an interest in and celebrate her grandchild’s participation in, for example, break dancing, not because she is interested in break dancing, but because she is interested in the activities of her family. This leads to the community taking responsibility for, and being inclusive of, the activities of all of its layers. Rather than an approach where different Live Site events are seen as being for particularly community layers, with other layers excluded or discouraged from participating, an *inclusive approach* should be developed where all layers of the community are welcome at, and respecting of, all Live Site events.

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5. As a consequence of the strategies and possibilities outlined in 1. to 4. above, Live Sites may develop into an important feature within local communities:

- **LIVE SITES CAN BECOME A SOURCE OF COMMUNITY SELF-ESTEEM, WHICH CAN LEAD TO OBSERVABLE COMMUNITY OUTCOMES RELATING TO IMPROVED PERCEIVED COMMUNITY SAFETY AND GREATER RESPECT BETWEEN LAYERS WITHIN THE COMMUNITY.**

*Community Self Esteem* can be derived from internal dimensions, such as the pride in serving multiple layers of the community, and external dimensions, such as the perception that the Live Site is something coveted by other communities. Evidence in section 3.1.3 suggests that this can lead to increased feelings of community safety, reduced vandalism, and a generally improved level of respect between different community layers.

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## 4.2) DEVELOPING PUBLIC HEALTH OUTCOMES FROM LIVE SITES

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1. The evidence from sections 3.2.1 and 3.2.2 suggests that:

- **IN AMBIENT PASSIVE MODE (AND IN SOME CASES IN AMBIENT INTERACTIVE AND EVENT PASSIVE MODES), LIVE SITES MAY HAVE THE POTENTIAL TO:**
  - (a) ***PROMPT* HEALTHFUL BEHAVIOURS AMONG THOSE WHO KNOW THEY SHOULD CHANGE.**
  - (b) ***PROMOTE* MORE POSITIVE ATTITUDES TO HEALTHFUL BEHAVIOURS AMONG THOSE DISENGAGED FROM HEALTH MESSAGES.**

**TO ACHIEVE THIS, STRATEGIES SHOULD:**

*I. FOCUS ON TWO MARKET SEGMENTS: "I KNOW I SHOULD BUT..." & "DON'T BOTHER ME"*

These two segments require different approaches that relate to the outcomes above.

Approaches to the "I know I should but..." segment should focus on *prompting* healthful behaviours, whilst approaches to the "Don't bother me" segment should focus on *promoting* more positive attitudes to healthful behaviours through more subtle messages (see point VI.).

*II. FOCUS ON INCLUDING CLEAR CUES AND SHORTCUTS TO HEALTH MESSAGES THAT CAN BE PROCESSED QUICKLY*

Live Sites broadcasting in this mode are more likely to lead to peripheral processing of messages which, although leading to less enduring change, can still impact upon public health outcomes.

*III. USE A LIKABLE SOURCE*

The likability of the source (the person, people or organisation conveying the message) has been shown to be derived from attitudinal similarity (does the source "think like me") and physical attractiveness.

*IV. DO NOT USE 'FEAR APPEALS'*

'Fear appeals' (messages designed to shock or frighten target segments into behaviour or attitudinal change) have only been shown to work where the target segments can be convinced that a health risk is personal and immediate. Live Sites broadcasting in this mode with messages designed to be processed peripherally have little potential to convince the target groups of a personal and immediate health risk, and without being convinced, target groups are likely to disengage from or dismiss fear appeals.

*V. USE A ONE-SIDED MESSAGE*

When messages are processed peripherally, the focus should only be on the argument for a particular behaviour as target groups will not engage in evaluating the quality of arguments.

*VI. FOCUS ON CREATING AN EMOTIONAL ASSOCIATION*

Live Site messages in this mode should focus on creating a positive emotional association between the health behaviour being promoted and desirable lifestyle elements

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2. The evidence from section 3.2.1 and 3.2.2 suggests that:

- **IN EVENT INTERACTIVE MODE (AND IN SOME CASES IN EVENT PASSIVE AND AMBIENT INTERACTIVE MODES), LIVE SITES MAY HAVE THE POTENTIAL TO:**
    - (a) **PROVIDE THE LATEST HEALTH INFORMATION FOR THOSE LOOKING FOR IT.**
    - (b) **PROMPT HEALTHFUL BEHAVIOURS AMONG THOSE WHO KNOW THEY SHOULD CHANGE.**
- TO ACHIEVE THIS, STRATEGIES SHOULD:**
- I. **FOCUS ON TWO MARKET SEGMENTS: “I’M ALREADY DOING IT” & “I KNOW I SHOULD BUT...”**

These two segments require different approaches that relate to the outcomes above. Approaches to the “I’m already doing it” segment should focus on *providing* the latest health information, whilst approaches to the “I know I should but...” segment should focus on *prompting* healthful behaviours.
  - II. **FOCUS ON INCLUDING HIGH QUALITY ARGUMENTS THAT CAN WITHSTAND CRITICAL SCRUTINY**

Live Sites broadcasting in this mode are more likely to lead to critical processing of messages which can lead to more enduring change, and thus can have an important impact upon public health outcomes.
  - III. **USE A CREDIBLE SOURCE**

The credibility of the source (the person, people or organisation conveying the message) has been shown to be derived from expertise and trustworthiness.
  - IV. **USE ‘FEAR APPEALS’**

As noted in 1. above, ‘fear appeals’ have been shown to work where the target segments can be convinced that a health risk is personal and immediate. Live Sites broadcasting in this mode with messages designed to be critically processed should attempt to convince the target groups of a personal and immediate health risk, and thus capitalise on the efficacy of fear appeals.
  - V. **USE A REFUTATIONAL TWO-SIDED MESSAGE**

When messages are critically processed, arguments are elaborated and subjected to scrutiny by the target segments. Consequently, the focus should not only be on the argument for a particular behaviour, but also on refuting any arguments or messages against (including, where relevant, those contained in commercial advertising).
  - VI. **FOCUS ON COMMUNICATING INFORMATION**

Live Site messages in this mode should focus on communicating the important medical and health-related information in support of the health behaviour being promoted.
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3. The evidence outlined in section 3.2.1 notes that effective public health campaigns need high exposure. Consequently:

- **LIVE SITE STRATEGIES SEEKING PUBLIC HEALTH OUTCOMES SHOULD: INCLUDE REPEATED MESSAGES AT DIFFERENT TIMES AND DIFFERENT OCCASIONS; INTEGRATE THE SAME MESSAGES INTO A RANGE OF SCREEN CONTENT; BE PART OF WIDER PUBLIC HEALTH CAMPAIGNS INCLUDING A RANGE OF OTHER COMMUNICATION ROUTES.**

While high exposure alone is not sufficient for a successful public health campaign, it is a necessary element if a campaign is to be successful. Consequently, public health outcomes that are leveraged through strategies using Live Sites alone are unlikely to be successful. Live Sites should be used as part of public health initiatives, not as single public health interventions.

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4. As noted in 2. above, public health outcomes sought from Live Sites can be confounded by commercial advertising.

- **TO ACHIEVE PUBLIC HEALTH OUTCOMES LIVE SITES MUST RETAIN *SOURCE CREDIBILITY AND COHERENCE* BY ENSURING THAT, REGARDLESS OF THE OCCASION, EVENTS OR ACTIVITIES ARE NOT SPONSORED BY, AND DO NOT PROMOTE, BRANDS SELLING PRODUCTS THAT UNDERMINE HEALTHFUL BEHAVIOURS.**

As well as individuals and organisations being regarded as the sources of messages, the Live Site itself may be seen as the source. There is a clear suggestion in the evidence in section 3.2.2 that the source credibility of a Live Site will be undermined if on some occasions it is seeking to promote healthful eating habits or reduced alcohol consumption, whilst on others it is hosting events sponsored by beer or fast-food brands.

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5. There is a clear role for local organisations and businesses, and temporary commercial concessions in supporting the achievement of public health outcomes from Live Sites:

- **THE IMMEDIATE COMMERCIAL ENVIRONMENT AROUND THE LIVE SITE (BOTH LOCAL ORGANISATIONS AND BUSINESSES, AND TEMPORARY COMMERCIAL CONCESSIONS) CAN BE HARNESSSED TO SUPPORT PUBLIC HEALTH OUTCOMES BY GIVING TARGET SEGMENTS THE OPPORTUNITY TO ACT IMMEDIATELY TO MAKE HEALTHFUL CHANGES TO THEIR BEHAVIOURS (E.G. BUY HEALTHFUL FOODS, JOIN PHYSICAL ACTIVITY CLASSES).**

When Live Site events and activities relevant to public health outcomes are scheduled, temporary commercial concessions (e.g. health food stalls) and relevant local organisations and businesses (e.g. health clubs or activity providers) should be alerted and encouraged to provide introductory offers to their goods and services so that target segments have the opportunity to act immediately on health initiatives.

6. The evidence in section 3.3 provides a range of suggestions relating to the programming and content of Live Sites. However, this comes with a warning that:

- **LIVE SITES SHOULD PROGRAMME ATTENTION GRABBING CONTENT SPARINGLY, AND IN A STRATEGIC WAY, TO ENSURE THE HIGHEST IMPACT AND TO AVOID BEING REGARDED AS *VISUAL POLLUTION*.**
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## 5) CONCLUSIONS

The evidence returned and discussed in this review indicates that Live Sites have the potential to generate both community and public health outcomes in local communities. However, it should be noted that, whilst the evidence returned was generally of good quality, there has been little research conducted that is directly about Live Sites. Therefore, particularly in relation to generating community outcomes, the conclusions of this review, and the preceding discussions and interpretations in sections 3 and 4, are based on the application of evidence from related literature to Live Sites, albeit generally good quality evidence.

The review suggests that generating community and public health outcomes from Live Sites requires an overlapping three step strategy. Firstly, local communities must be engaged with the Live Site and supportive of its location within the community. Evidence from a range of sectors has shown that it is not possible to achieve public policy outcomes from a particular project, unless the community is engaged with and supports that project. Consequently, positive engagement is a pre-requisite step to strategies to generate community and public health outcomes from Live Sites.

Secondly, strategies have been suggested to develop community outcomes from Live Sites. To a certain extent, some elements of these strategies are also community engagement approaches, and so they can overlap with efforts to engage the local community with Live Sites. However, care must be taken to ensure that the Live Site does not overtly appear to be a tool of public policy in the early stages as this is likely to lead to disengagement. The review suggests that Live Sites have the potential to serve a wider range of levels within the community than more traditional events, facilities and venues as they can be *community chameleon facilities* that can bring *Places to People* by using screens and their surrounding environment to create, for different occasions, different *types of places* that can satisfy the varying demand of different levels within the community for particular social experiences. The *types of places* that might be created for different occasions include those in which the social experience of football spectating, snowboarding, beach festivals, Proms concerts, Mela festivals or Remembrance Day (see pictures 1-6 in sections 3.1.2 and 3.1.3) might be celebrated or remembered. Further evidence suggests that Live Sites can contribute to developing a *family model of community cohesion* in which different layers of the community are not only accommodating of the activities of other layers, but actively celebrate those activities as a source of community pride. This can enhance *community self esteem* which can lead to observable community outcomes relating to improved perceived community safety and greater respect between layers within the community.

Thirdly, the review has suggested strategies to generate public health outcomes from Live Sites. While these strategies might run concurrently with strategies aimed at generating community outcomes, they should only be attempted once communities are fully and positively engaged with Live Sites, and should continue alongside strategies to retain positive community engagement. The review has suggested that different Live Site broadcasting modes are likely to result in public health messages being processed in different ways. When the Live Site is in ambient passive mode (and on some occasions in ambient interactive and event passive modes), messages are likely to be processed in a more peripheral way, and therefore should focus on cues and shortcuts, and on creating an emotional affinity between the behaviour being promoted and desirable lifestyle elements. In event interactive mode (and on some occasions in event passive and ambient interactive modes), messages are likely to be processed in a more critical way, and therefore should focus on the quality of the arguments presented and on elaborating on the medical and health-related information that supports the message. However, public health outcomes sought from Live Sites should be integrated within wider public health campaigns, as Live Sites should be seen as contributing to such campaigns, rather than being a single stand-alone public health intervention.

Particular attention should be paid to the relationship between Live Sites and the commercial sector. On one hand, Live Sites must retain *source coherence and credibility* by ensuring that, regardless of the occasion, events or activities are not sponsored by, and do not promote, brands selling products that undermine healthful behaviours. On the other hand, the immediate commercial environment surrounding the Live Site (local organisations and businesses, and temporary commercial concessions) can be harnessed to support public health outcomes by giving target segments the opportunity to act immediately to make changes (e.g. buy healthful foods or join fitness classes).

While this review indicates that Live Sites have the potential to generate both community and public health outcomes in local communities, such outcomes are not inherent. That is, the potential for community and public health outcomes can only be realised if Live Sites are actively leveraged for community development and public health. However, the various advantages that Live Sites have in being promoted and developed as a resource for all layers within the local community suggests that developing such active leveraging strategies could yield significant benefits. The key community and public health challenges for Live Sites now are twofold: firstly, the development of a coherent initial strategy to maximise the potential to realise community and public health outcomes; secondly, the design and implementation of a programme of ongoing monitoring and evaluation to ensure that knowledge about the way in which community and public health outcomes are being achieved feeds back into Live Site strategy in real time.

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