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The Science Communication of Whale Watching

A SciCommercial and Social Marketing Approach



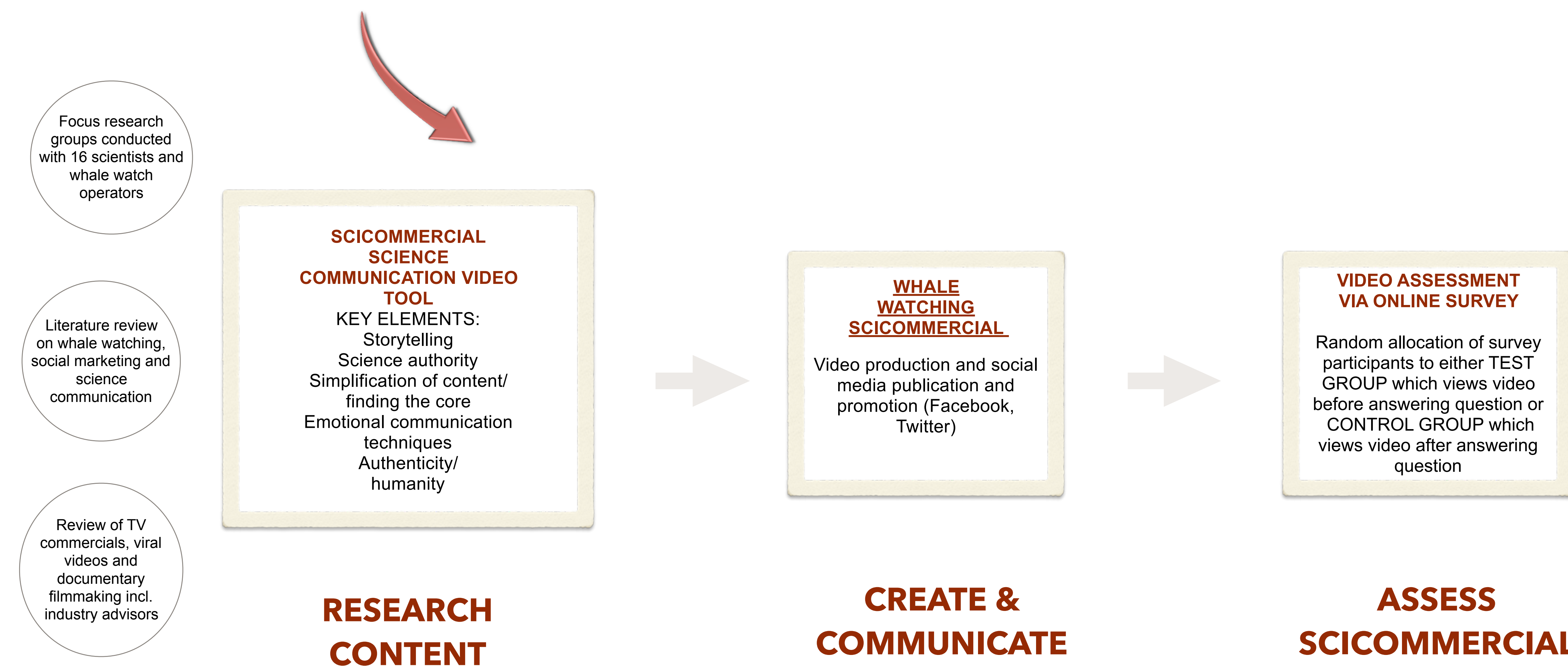
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THE STORY Since the 'Save the Whale' movement of the 1970s, whale watching has developed into one of the most successful types of tourism in the world providing economic, community, educational, research and conservation benefits. In 2008, 13 million people went whale watching in 119 countries (Hoyt, 2001). A significant body of scientific research, however, indicates that whale watching can have negative impacts on whales and dolphins. These relate to proximity and speed of boats, boat crowding, underwater noise pollution and disturbance of important behaviours such as feeding, resting and nursing. Management of whale watching around the globe ranges from government regulations to guidelines and voluntary codes of conduct, to no management at all (Garrod and Fennell, 2004). The latter places the onus to act responsibly on the whale watching tour operator.

The lack of sustainability in whale watching is, in part, due to poor uptake of science and ineffective public communication (Finkler, 2014). Critical scientific information is not getting out to the whale watching community, hindered partly by the predominant marketing of whale watching as an inherently clean and green alternative to whaling (Neves, 2010). Furthermore, potential impacts of whale watching are largely invisible to the whale watching public. It is, therefore, crucial to develop more effective science communication avenues, increase public awareness about good whale watching practices and manage visitors' expectations.

I argue that the discipline, structure and focus on changing behaviour that characterise social marketing provide important lessons for making science communication in the whale watching setting (and beyond) more effective. My research investigates (1) a theoretical science communication video tool called SciCommercial video (Science Communication Commercial), drawing on key elements of social marketing, TV commercials, viral videos and documentary filmmaking, (2) presents the findings of a case study of a whale watching SciCommercial video focusing on elements of good whale watching practices, and (3) proposes the SciCommercial Model: a conceptual integrated people focused science communication marketing approach (incorporating the SciCommercial video tool as creative communication strategy).

RESEARCH OBJECTIVE: To assess the whale watching SciCommercial video in terms of its effectiveness to influence public attitudes towards close encounters.



OUR FUTURE The findings have important implications for creating more effective science communication in the whale watching setting and the potential of carefully designed SciCommercial videos to influence public perceptions. The creative SciCommercial video developed and tested as part of this research, presents an educational management tool for the whale watching industry by advocating sustainable practices to stakeholders, increasing awareness about impacts and managing visitor's expectations. Informed members of the public, as key whale watching stakeholders, form a significant potential compliance management opportunity that can contribute towards the sustainable development of the industry. More effective and pro-active science communication in the whale watching setting, therefore, is a critical challenge.

The SciCommercial video tool utilises simplification (finding the core science message), unexpected, concrete, credible, emotional, science storytelling to communicate science to target audiences. The SciCommercial Model and SciCommercial video tool provide a conceptual integrated people focused science communication marketing approach, drawing on marketing techniques and processes, such as audience segmentation, framing, influencing behaviour and barrier/benefit research (see Figure above). The SciCommercial Model has potential for wider science communication, to influence public attitudes and/or human behaviour, and requires further research into developing and testing the SciCommercial Model as a strategic communication process. This process has to include rigorous foundational research, audience specific communication strategies (such as the good whale watching SciCommercial video tool), and evaluating and monitoring communication outputs and returns, based on dialogue and participation with different publics and stakeholders, within the wider political science context.

MY RESULTS A total of 1332 surveys were collected online with random allocation of participants into two groups, TEST and CONTROL. The sample groups were identical in terms of age, gender, education as well as previous whale watching experience. Survey participants were asked to imagine that they are going on a whale watching trip and rate their agreement with statements relating to proximity. Statistical tests (Independent Sample *t*-Test) show a significant difference between the TEST and CONTROL group. People in the TEST group, who had viewed the video prior to answering the questions, disagreed significantly more with the statements 'I would choose a tour operator that gets me closest to the whales' ($t = 3.24$, $P = 0.001$) and 'I would only be satisfied if I saw whales close-up' ($t = 2.80$, $P < 0.01$), compared to the CONTROL group who viewed the video after answering those questions.