

Title: **Entertainment-Education for Sustainable Lifestyles: Storytelling for the Greater, Greener Good**

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Abstract

Can mass-mediated storytelling inspire sustainable practices for the greater public good? Can positive media models be portrayed that uphold sustainability principles? These are challenging questions for the transdisciplinary field of sustainability communication. The present article argues that the Entertainment-Education (E-E) communication strategy represents an engaging and innovative approach in sustainability communication. We note the urgent need of more sustainable lifestyles and highlight the role the E-E strategy can play in this public endeavour. We describe the E-E strategy, its theoretical foundations, including E-E effects and collaboration research, and provide examples of several E-E interventions for sustainability. We conclude by raising ethical considerations and the implications that E-E hold for the greater, greener public good.

Keywords

Sustainability Communication; Sustainable Lifestyles; Entertainment-Education strategy; Drama series; Effect Research; Forms of Collaboration; Mass-mediated storytelling; Climate change; Media Ethics.

Introduction

How can the popular media spur public conversations about sustainable lifestyles and motivate people to act? Consider the following: In 1998, All India Radio, the Indian national radio network, broadcast a 52-episode radio soap opera "*Yeh Kahan Aa Gaye Hum*" ("Where Have We Arrived?") that purposely dealt with environmental issues like the air, water and noise pollution, deforestation, solid waste disposal and organic farming (Singhal, Pant and Rogers, 2000). With an estimated listenership of 40 to 50 million people, the radio soap opera was part of a strategic communication campaign that involved radio and television spots, media coverage in the national, regional and vernacular press, and collaborative

partnerships with India's Pollution Control Board of India and 60 field-based non-governmental organizations. Following the broadcast of each episode, Shabana Azmi, a popular Indian film actress and social activist, summarized the modelled messages about pro and anti-environmental behaviours, goading listeners to launch village-clean up drives, plant trees, conserve water, and use reusable cloth bags instead of disposable plastic ones.

A community-centered research project in Village Lutsaan of India's UP state that analyzed the effects of "*Yeh Kahan Aa Gaye Hum*" revealed that the members of several local radio clubs listened to the radio serial collectively (Singhal, Pant and Rogers, 2000). Each episode of "*Yeh Kahan Aa Gaye Hum*" was followed by a highly engaging post-broadcast discussion in which listeners dialogued about the key environmental lessons, and identified feasible ideas for implementation at the local level. For instance, inspired by the entertaining and engaging soap opera, the community took decisions about collectively planting trees, undertaking bicycle tours to educate the public to conserve fuel, and to manage waste more judiciously. The audience effects of "*Yeh Kahan Aa Gaye Hum*" and various other research projects show that popular media formats like soap-operas, dramatic serials, serious games, or movies can not only entertain, but also communicate sustainable consumption practices.

For over three decades, the theory-based Entertainment-Education (E-E) communication strategy has been implemented to reach audience members all over the world, in changing their knowledge, attitudes and behaviours about sustainable consumption, creating an enabling climate for affecting social norms. In the present article we explore the potential of E-E as a communication strategy for influencing sustainable lifestyles. We argue for the urgent need of sustainable lifestyles and the role the E-E strategy can play in this public endeavour. We describe the E-E strategy, its theoretical foundations, the process through which E-E has its effects, and how sustainability and media professionals can collaborate to tell compelling stories, spur conversations, and achieve the greater, greener public good. We provide E-E examples from various parts of the world – including India, Vietnam, several countries of the Caribbean, and Europe that have promoted sustainable consumption practices, and also highlight the ethical considerations undergirding the E-E strategy. We end with recommendations of future E-E practice and research in promoting sustainable consumption.

The Need for Communicating Sustainable Lifestyles

Rising CO₂ emissions around the world are leading to global warming, melting of glaciers, and more unpredictable storms and weather patterns (IPCC, 2007). Such climate change consequences are, moreover, unevenly distributed socially and spatially. Countries, which do not contribute to these rising carbon emissions, are often more affected – a case of global injustice (Sachs, 2005). The rising consumption and production processes of industrialized and newly-industrialized countries are driving these climactic changes (Oreskes, 2004). Needed, and urgently, are more sustainable consumption practices the world over.

Sustainable consumption is “the use of goods and services that respond to basic needs and bring a better quality of life, while minimizing the use of natural resources, toxic materials and emissions from waste and pollutants over the life cycle, so as not to jeopardize the needs of future generations” (UNCSD, 1994). Sustainable consumption includes an active engagement of civil society and its members in not only moderating material consumption but also creating a public discourse that leads to social and civic actions.

There are numerous studies that demonstrate that consumers in the industrialized countries lack understanding of how their self-interest (or selfishness) contributes to a “tragedy of the commons”. Each individual pursues their self-interest believing it will make little difference, but the cumulative result is a collective tragedy. Recent studies in several industrialized countries also show a rising awareness and concern about social and environmental problems. According to the WBCSD (2008, p. 15) report, 96% of Europeans indicate that protecting the environment is personally important for them. Around 18% of consumers in the UK said they are “willing, able and motivated to take action on environmental issues”. From a sociological perspective, on one hand, often people of high socio-economic status (SES) comprise the “positive greens”: those who are more attuned to consuming e.g. fair trade products and lifestyles that are environmental and societally-friendly. However, on the other hand, this group is not willing to abstain from various non-sustainable products, services or lifestyles, especially those that decrease their social status or which are inconvenient (Kreeb, Motzer, and Schulz, 2008). Correspondingly, there are also target groups with a lower socio-economic status (Wippermann et al., 2009), who are frequently ‘hard to reach groups’ and ‘non spontaneous information seekers.’ These variations in different target groups, whether of a high or low SES, must be taken into consideration in the sustainability communication field. A wide variety of communication strategies are needed in order to engage different consumer segments (Godemann and Michelsen, 2011).

The present article argues that sustainability topics can be strategically integrated in highly popular entertainment media formats to reach different target groups to inspire and motivate them to adopt more sustainable consumption practices (Reinermann and Lubjuhn 2011). Creating popular entertainment formats to communicate social change issues is the basis of the Entertainment-Education (E-E) strategy (Singhal and Rogers 1999; Papa and Singhal, 2009). Bouman indicates that “if the attention of the target audience is to be caught and held it is no longer sufficient to rely solely on the rationality of the message: other, more emotionally appealing and popular communication methods must also be brought into play” (Bouman, 1999, p. 15). It is crucial to not only apply cognitive, rational-orientated formats and strategies, e.g. handing out brochures, showing informational documentaries or video clips, but also to use more emotionally-engaging communication strategies, e.g. by telling a compelling story in a drama series on television or the Internet (Lubjuhn and Hoffhaus, 2009). When social issues are communicated in popular narratives, it can strengthen the establishment and preservation of collective norms and support different kinds of consumers to find their own identity in existing social structures (Reichertz, 2009). Lubjuhn

and Pratt (2009) and Reisch and Bietz (2011, p. 147) argue that: “Newer approaches to convey sustainability through entertainment media have potential, because they are better suited to a post-modern, visually-orientated image and consumption culture of the generation than traditional “cognition-biased” formats”. According to Vorderer, Klimmt and Ritterfeld (2004) fictional narrations generate social information, which may result in understanding, awareness or even changes in attitudes or behaviour changes when entertainment formats are strategically harnessed to spur public conversations.

The Entertainment-Education Communication Strategy

The E-E communication strategy is defined as “[...] *a theory-based communication strategy for purposefully embedding educational and social issues in the creation, production, processing, and dissemination process of an entertainment program, in order to achieve desired individual, community, institutional, and societal changes among the intended media user populations*” (Wang and Singhal, 2009, p. 272-273). The idea of combining entertaining and educating elements is not new and goes as far back in human history as the art of storytelling. For thousands of years, drama, music, dance and other forms of folk media have been used around the globe for recreation, reformation and instructional purposes (Singhal and Rogers, 1999; Singhal et al., 2004). Entertainment therefore can be understood “(...) *as a performance or spectacle that captures the interest or attention of individuals, giving them pleasure and/or amusement [...] [and] education as either a formal or informal program of instruction and training that has the potential to develop an individual’s skill to achieve a particular end by boosting his or her mental, moral, or physical powers*” (Singhal and Rogers, 1999, p. 10).

Theoretical Foundation of the E-E Strategy

Entertainment-Education (E-E) uses affective, emotional messages to show people how they can live a healthier and environmental friendly life. In order to promote sustainable lifestyles, the E-E strategy holds unique potential on account of its multidisciplinary theoretical framework. During the past few decades, the theoretical focus of E-E has been on understanding the various social and psychological processes that media consumers encounter in processing an E-E narrative. More recently there is a growing recognition of the danger of this individualistic and ‘mechanistic’ approach for social change (Dutta, 2006; Singhal and Rogers, 1999), and E-E now takes a more holistic approach including a deep consideration of the cultural background of the media users and the specific characteristics of the media platforms.

While various theoretical frameworks have influenced the Entertainment-Education strategy, cognitive processing theories have clearly dominated. They address individuals’ psychological beliefs and perceptions about their social environment as driving forces for

behavior change. Common among these are Becker's health belief model (1974), Fishbein & Ajzen's theory of reasoned action (1975), Ajzen's theory of planned behavior (1980), Petty & Cacioppo's elaboration likelihood model of persuasion (1986) and its applications by Bouman (1999), Slater (1997) and Slater and Rouner (2002). Slater (1999) suggests that narrative engagement through absorption and identification with characters is the most critical for attitudinal (and maybe behavioral) change. Recent research from Bae (2008) based on the elaboration likelihood model and the theory of planned behavior stresses the role of emotion (sympathy and empathy) and issue involvement, and suggests incorporating these constructs in a new model for prosocial behavior change.

Other important theoretical notions in Entertainment-Education include the social marketing perspective, Bandura's social cognitive theory, parasocial interaction theory, identification theory, motivational and persuasion theories, and step and stage theories. While the social marketing perspective has been fruitful to strengthen systematic applications of marketing models, concepts and techniques in E-E to achieve specific prosocial behaviour goals (Kotler, 2006), social cognitive theory has provided central theoretical contributions for creating and implementing prosocial messages, as it focuses on how people learn from situations by observing the behaviour of others (vicarious learning) (Bandura, 2004). The social cognitive theory (Bandura, 1977) claims that the audience can learn new behaviours by observing role models in the mass media and then model the same behaviour. Like the social cognitive theory, the parasocial interaction theory (Horton and Wohl, 1956) and the identification theory (Kelman, 1961) also focus on the audience of E-E media programs and how they may be convinced to change their knowledge, attitude and behavior towards a prosocial way of being. The theory of parasocial interaction has been conceptualized as a measure to analyze cognitive, behavioral and affective audience involvement before, during and after media exposure (Sood and Rogers, 2000). The identification theory is based on the affectively orientated parasocial interaction. In this theoretical context, Sood (2002) has pointed out a need for adequately distinguishing where the process of parasocial interaction ends, where audience identification begins, or whether these processes have overlaps. Other theoretical notions in use in Entertainment-Education deal with the process of motivating people to change their attitude and behavior, such as the persuasion theory by Hovland and his associates (Hovland et al., 1953), the social comparison theory (Festinger, 1954) or the attribution theory (Heider, 1958). At the heart of these theories lies the assumption that people will change their behavior when they know the objective risks and when they recognize them as real threats. Recent research has extended these models and proposes the affective components of narrative engagement of audience members as important and possibly leading to changes in knowledge, attitude or even behavior (Bae, 2008; Chatterjee et al., 2009). The last central theoretical notions applied in E-E programs, which is mentioned here, are step and stage theories. Step and stage theories are predominately found in the field of advertising and are very heterogeneous in explaining different steps to audience behavior change.

Entertainment-Education effect research

There is an expansive and rich literature on basis of E-E effects which is documented in several meta studies (Bouman, 1999; Singhal and Rogers 1999; Singhal et al, 2004; Sood et al. 2004; and others). While most reported effects of E-E programmes are at the level of exposure and awareness, results have also been reported in affecting attitudes and changes of behaviour (Singhal and Rogers 1999; Kaiser Family Foundation, 2008; Movius et al. 2007; Movius et al. 2009). The strength of E-E programmes lies especially in social modelling, social reinforcement and interpersonal communication. Some E-E projects were also successful in triggering and mobilizing local communities by engendering collective efficacy (Usdin et al., 2004). While the direct effects of most E-E programmes were modest, the indirect effects via the encouragement of peer communication can be substantial (Singhal and Rogers, 1999). Effects occur through the social psychological processes of social modelling, parasocial interaction and efficacy building which take place particularly when audience members discuss the content of an E-E message in peer communication. Although E-E programs have proved effective in engaging audiences' attention with respect of the prosocial issue and in communicating the message as intended, the E-E strategy is not free of problems. Viewers have not always identified with the intended characters and it was sometimes difficult to find the right balance between entertainment and education. When messages become too preachy, audience members can be turned off (Singhal and Rogers, 1999). In addition, many summative research designs had methodological limitations. Entertainment-Education, in general, can help bring about social changes, and under certain conditions (in combination with other sources of influence) it can create a climate for social change. There are several contextual differences between non-western and western countries that may explain why some E-E projects are very successful, while others are not, such as differences in infrastructure, available audiences, novelty and timing and other societal factors (Bouman, 1999).

E-E collaboration research

Beside research activities and questions with respect to the theoretical foundations of E-E projects, the collaboration research in E-E plays a crucial role. The quality of the E-E intervention is often determined by how prosocial communication experts (e.g. sustainability experts) and the media entertainment professionals collaborate to develop and implement an E-E program. There are various levels of E-E collaboration.

The highest level of collaboration is an *E-E production*, defined by Bouman (1999, p. 123) as "an initiative of a prosocial organization to act as an independent producer and design and produce one's own entertainment program for prosocial purpose (...)". Being now the actual 'producer', the prosocial organization has full authority over all stages of the production process. The second highest level of collaboration is the *E-E co-production* in which the level

of collaboration is somewhat lower. According to Bouman (1999, p. 123) an *E-E co-production* is “a formal transaction between a prosocial organization and broadcasting organization or an independent producer to design, produce and broadcast a new entertainment program for prosocial communication purposes”. The next level is *E-E inscript participation*, defined as “a formal transaction between a prosocial organization and a broadcasting organization or an independent producer to use an already existing entertainment programme as a carrier of prosocial communication purposes” (Bouman 1999, p. 123). In this E-E collaboration arrangement, a prosocial issue is designed as part of a drama line within an already existing series, such as in the Dutch TV series “*Costa!*” (Bouman, 2004). In both *co-production* and *inscript participation* arrangements, prosocial and television professionals share a financial budget for jointly integrating prosocial themes into a new entertainment format (*co-production*) or an existing one (*inscript participation*) (Bouman, 1999).

Another type of collaboration, having a lower level of collaboration, is the *E-E-service* partnership arrangement. It differs from other types of partnerships in the sense that in this partnership the prosocial communication professionals only offer advice to the media entertainment professionals and are not ‘actively’ involved in the decision-making process on the program content. *E-E service* is defined here according to Bouman and Brown (2011, p. 18) as “a strategy of prosocial organizations to facilitate (factual and timely information, contacts with experts, shooting locations, etc.) broadcasting organizations, or independent producers in dealing with a prosocial communication in their entertainment programs”. TV scriptwriters often use the Internet as a source for their stories, so it is effective to provide forums, platforms and contact data to sustainability communication experts, which fit the writers’ needs to tell good stories (e.g. short and factual information, relating to human experience). In this context, it is important to invest in a good relationship. For example, Hollywood, Health & Society (HH&S), a program at the University of Southern California, Annenberg School for Communication, successfully introduced health themes (e.g. HIV/AIDS or cancer) in US prime time entertainment programs (Beck, 2004; Kaiser Family Foundation, 2008). A Dutch E-E service approach comes from the Center for Media & Health with the platform “Tips voor Scripts” (Tips for Scripts: www.tipsvoorscripts.nl) targeted to the media entertainment professionals, who need advice on their health story lines. The partnership arrangement, having the lowest level of collaboration is named *E-E license*. Lubjuhn (2012, p. 177) defines this type as “a strategy of prosocial organizations to have the right to use an existing entertainment program for educational purposes to create awareness about a prosocial issue after it has been broadcasted”. In an *E-E license* collaboration the prosocial communication professionals only pay the media entertainment professionals a fee to receive a license to exclusively use the entertainment program for their educational purposes (e.g. in an educational DVD packet or a didactical material). The prosocial communication professionals are not a part of the decision-making processes about the media program. In sum, the collaborative basis for the involved parties is quite different in each of the collaboration arrangements mentioned above.

Ethical considerations in E-E

The E-E strategy, by its very nature, needs to be grounded in an ethical framework. In fact, unlike most communication strategies, the E-E strategy has undertaken several proactive steps to be ethical. For instance, one of the E-E pioneers in Mexico, Miguel Sabido established a moral framework for producing E-E to ensure that the values promoted in the program are consistent with the countries' constitution and legislation (Rogers and Singhal, 1999). In this context, agreement on the program's value grid signed by the involved stakeholders – broadcast media officials, government officials, commercial sponsors, etc. – guides the process of producing the program. Sabido has also suggested involving local producers and scriptwriters to work on the program, ensuring that it is culturally sensitive, authentic and incorporates local language. Subject matter specialist in health, social and environmental issues should additionally insure the accuracy of the shown program content. Moreover, the theoretical foundation and research on an E-E program helps (1) to analyze and anticipate the viewer's needs and desires (2) to produce programs that suits to the audience's real life experience and (3) to understand the program's effects. By portraying positive, negative and transitional role model behaviours and realistic consequences, the audience members can draw their own conclusions, reinforced by the epilogue of the program.

Further, E-E research has led to the identification of various ethical dilemmas, which the implementers of E-E collaborations have to attend to. There are at least eight different dilemmas which are reflected in various literature (Bouman, 1999; Brown and Singhal, 1990; Brown and Singhal, 1997; Singhal and Rogers, 1999). For example, the prosocial development dilemma problematizes the question whether it is right to use the mass media as a persuasive communication tool to change people. The prosocial content dilemma problematizes how to differentiate between prosocial and antisocial behavior. The Source-centered dilemma problematizes the question of who decides what is prosocial, which audience should be targeted and which messages should be sent. In essence, both E-E research and practice operates with ethical sensibilities.

Best-Practice: E-E and Sustainability

There are some notable (although not many) examples from the world over that have used various E-E collaboration formats to convey sustainability messages. Here we describe examples from the: (1) Non-Western Countries in Vietnam, the Caribbean and in Colombia, and (2) Europe: The Netherlands and Germany.

Non - Western Countries: Soap Operas on Sustainability Issues

In 2004, the Vice Minister for Agriculture and Rural Development in Vietnam launched the E-E Soap Opera "*Chuyen Que Minh*". An E-E co-production between Vietnam's Department of

Plant Protection and Radio Ho Chi Minh, it was designed to educate Vietnam's rice farmers on environmentally sound farming practices in an effort to reduce chemical pollution of the soil and farmer exposure to pesticides. Some 104 episodes were broadcast during 2004-2005 and the effects of the E-E program were evaluated by a pre-post-test survey of 600 farmers. The data showed that farmers' who were exposed to "*Chuyen Que Minh*" were positively changed in their beliefs and practices. Between pre- and post-launch farmers' insecticide sprays dropped 31% from 1.9 to 1.3 sprays per season with corresponding changes in attitudes. "In the post-test farmers who had listened had higher reductions in insecticide sprays (60%), nitrogen (9%) and seeds (33%) compared to those who had not listened to the soap. There were also similar changes in their belief attitudes favoring judicious use of pesticides, fertilizers and seeds" (Heong et al. 2008, 1396). More importantly, the co-production helped to close the wide gap between scientific knowledge in pest management and farmers' knowledge. A variety of on-the-ground campaign activities like radio quizzes, contests, and "meet-the-actors" day were employed to boost and maintain the popularity of the serial drama (Heong et al. 2008). Inspired by the success of the radio series, a 20-episode television series to promote principles and practices of ecological engineering, "*Cong Nghe Sinh Thai*", was launched in June, 2012.

The New York-based international NGO, PCI-Media Impact, supports a wide variety of environmental conservation and sustainability programs all over the world. For example: "*Callaloo*" ("a traditional Caribbean stew") is PCI-Media Impact's regional radio drama in 15 Eastern Caribbean countries that combines steamy plotlines of love, desire, joy, corruption and tragedy along with climate change, biodiversity conservation and health. The 208-episode radio drama went on the air across the region in September, 2011, and will continue airing new episodes twice a week for the next two years. The program promotes multiple strategies such as ecosystem-based adaptation to climate change; multiple-use marine zoning; emergency preparedness; sustainable finance mechanisms; community well-being and livelihood opportunities; and the rehabilitation and conservation of natural sea defenses like mangroves and coral reefs. The program which represents a co-production between PCI-Media Impact and 50 partner organizations in 15 Caribbean countries targets listeners – from decision makers to school children – role modeling actions communities can take to adapt to the rising sea levels, stronger storms and loss of biodiversity associated with climate change, and to secure a sustainable future for the islands they call home. While "*Callaloo*" is broadcast on-air, local on-the-ground campaigns are running in each of the countries to facilitate community-level actions. The program has high audience ratings and more effects data should be forthcoming in the next several months.

In 2010, PCI-Media Impact broadcast "On the Banks of Hope," a radio drama in Colombia designed to inspire and empower rural communities in Anolaima to engage in sustainable waste management activities and take pride in their community and land. With growing urbanization and industrialization rural farm families have abandoned many traditional production practices. In 2010, Corporación Tierrafertil, Radio Ecos de Rosarios and PCI -

Media Impact worked to revive these important traditions through a co-production. A plotline included a group of women interested in environmental issues who experience the stigma that comes from working in recycling and environmental conservation. Another plot centered on a school where students and teachers are torn between being fashionable and effectively managing solid waste. Gradually, though, both youth and adults realize it is possible to live “beautiful” lives only while working together for a cleaner environment.

Europe: Netherlands & German Activities: “Oppassen”, “Goede Tijden, Slechte Tijden” and “Lindenstraße”

One of the first Dutch E-E drama series that dealt with environmental issues was the comedy “*Oppassen*” (“*Take Care*”) broadcast from 1991-1993. The Dutch Ministry of Housing, Spatial Planning and Environment (VROM), the broadcasting station VARA, and the production company Blue Horse Productions teamed up in an *inscript participation* arrangement. The aim of the episodes was to enhance pro-environmental behaviour patterns, such as the reduction of household waste. The ministry did qualitative focus group interviews to pre-test the environmental messages and while no formal evaluation was conducted, the program was well-received by Dutch audiences.

An example where the entertainment producers integrate the storyline by themselves is the Dutch daily soap opera series of 2007-2008, “*Goede Tijden, Slechte Tijden*” (“*Good Times, Bad Times*”) there is a long-running storyline about environmental issues. As the most popular Dutch daily soap, the program reaches each weekday evening around 1.5 million viewers (out of 17 million Dutch inhabitants). This number of recipients watched the story of a main character, Charlie, a beautiful young woman, changing to a more sustainable lifestyle. The sustainability story starts with Charlie, as she sits in front of the television, being overwhelmed by the fact that climate change can do harm to the human kind in the future years to come. The television show ends with the urgent call to act environmental friendly or otherwise every body’s future is at risk. Charlie is deeply touched by this message and decides to change her lifestyles drastically in order to offer her son JJ a better future. In several dialogues, Charlie explains what a carbon-footprint is, what direct consequences it can have for people, especially in the Netherlands, when the sea level is rising. She offers several solutions, suggesting to her friends, family members and colleagues to take the bus instead of the taxi, to use a showerhead that saves water, and to buy CO₂ certificates when polluting the environment. In the storyline, Charlie succeeds in convincing some of her family members and friends to change their lifestyle to more sustainable ones. However she demands of herself and others too drastic changes in a very short period of time. She is too harsh on herself, as well as with the people in her social environment, with the consequence that no one takes her seriously. As noted previously, this storyline of Charlie was not developed in the context of an E-E partnership arrangement. If there would have been E-E collaboration between the scriptwriters and sustainability communication specialists, then only obtainable, realistic small behaviour change steps would have been portrayed in the

storyline. E-E practice would have forewarned about the importance for setting realistic goals for mass mediated role models to avoid disappointment and failure (Singhal and Rogers, 2004).

An example where an E-E *service collaboration* was used for sustainability issues, is the episode *“Suche Klima, biete Schutz”* (“Looking for climate, offer protection”) of the longest running weekly television soap opera in Germany, the *“Lindenstraße,”* Broadcast by the public broadcasting station ARD. Since 1988, *“Lindenstraße”* has dedicated more than 13 episodes to environmental topics with highly passionate and vocal characters. The weekly soap opera regularly reaches about 3 million viewers. As a result of its popularity, in 2008, the German Federal Ministry for the Environment collaborated with the *“Lindenstraße”* and the Department of Health and Environment of the city of Munich as well as the Federal Ministry of Environment, Nature Conservation and Nuclear Safety in order to (1) get ideas (e.g. climate change tips) for their episode and (2) to receive support by the environmental organizations for designing and implementing an environmental day in Munich, Germany. The aim of the collaboration was to communicate environmental messages in one episode and combine this with a real live-event (environmental day), dealing with environmental issues. Available research showed that the *“Lindenstraße”* episode influenced the knowledge, attitudes and behaviour of the audiences who saw the episode. Further, the influence on audience members was greatest and most credible when the content of the messages and its setting were aligned with the audience member’s daily realities. These realistic components are necessary to influence the audience to take action (e.g. talk with others about the topic or to consume more sustainable) (Reinermann, 2010).

Conclusion and Research Visions

The E-E strategy has a high potential to communicate sustainability messages to the public, to inspire sustainable practices, to raise awareness or change attitudes and behaviours for the greater public good. A body of E-E research suggests how audience members can get involved with popular sustainability narratives, think and talk with others about sustainable lifestyles – actions that are prerequisites for behaviour change. We propose three visions that bring together the field of E-E and Sustainability Communication for further discussion and reflection.

Vision 1#: Entertainment-Education and Collaboration Research in Sustainability Communication

A more intense dialogue needs to be initiated between entertainment media and sustainability communication professionals. Investing in collaborative and mutually rewarding relationship means co-learning with another set of professionals. For E-E implementers and funders important questions include how E-E partnership arrangements can be effectively developed in their country, how E-E messages can be designed that suit

the target audience members, and how can E-E messages create the biggest impact. For example, several European countries could be inspired by the activities in the Netherlands, and invest in systematic E-E partnership arrangement activities and in the design and implementation of theory-driven E-E programs. The question of which E-E collaboration arrangement is the most suitable can be ascertained based on who are the partners, what aspirations and motivations they bring, and what type of media legislation and media system exists in the country. Various media legislations and media systems make it challenging to design and implement some of E-E collaboration arrangements in specific media channels, while others advantage them. High potentials for *E-E productions* and *E-E co-productions* lie in many European countries using Internet and television platforms, coupled with interactive and social media formats. Sustainability issues are both related to changes on macro level – e.g. new governmental rules for the industry- and changes on a personal citizen level. Entertainment drama series can be highly effective to engender changes on a personal level as storylines that deal with personal dilemmas, love, ambition, fear and death have a higher impact and audience satisfaction than a macro organizational, system level approach.

Vision 2#: Entertainment-Education and Transmedia Storytelling

Numerous highly effective transmedia projects have been designed and implemented in recent years for health, business, education, and activist agendas (Davidson et al., 2010). For example, EVOKE (urgentevoke.com) is a 10-week crash course in changing the world, uses a graphic novel to broach a weekly global crisis, teaching players essential skills like creativity, collaboration, entrepreneurship, and sustainability to tackle intractable world problems such as hunger, poverty, and access to clean water. Developed by Jane McGonigal and the World Bank Institute, this project attracted 8,000 students in 120 countries within the first week of its launch in March 2010. Students are encouraged to come up innovative solutions to urgent problems, report on their activities through blogs and videos, and at the end of the course set themselves up to carry out an actionable project in the real world with others. To tell a story across multiple platforms, which engage the audience using various techniques and be part of the story, need to be implemented and research about the using and implementing process need to be done (Singhal, Wang and Rogers, 2012).

Vision 3#: Entertainment-Education and Effect Research in Sustainability Communication

E-E's premise is that showing a popular media role model in a television or Internet series is far more effective than preaching to the audience about what they ought to do. When mass media role models deal with sustainability dilemmas in everyday life, struggle with purposive actions to limit their carbon footprints, and realize how the tragedy of the commons can only be averted with concerted individual and collective action, only then can the consumerist tide begin to turn. The influence of E-E sustainability narratives will be greater when a message evokes familiarity and then adds an idea or concrete information, rather than when it is contradictory to the prevailing opinion. To integrate such messages it is

important to work with professional storytellers and to increasingly, and strategically, apply communication interventions on an emotional, affective- level to highlight the role of both individuals and communities in creating a sustainable world.

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