



MULTIMEDIA RESEARCH

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THE HUMAN SPARK Outreach: Collaboration between PBS Stations and Museums

Report for THIRTEEN
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Photo courtesy of TPT: October, 2009, Twin Cities Public TV & Science Museum of MN sponsored a screening event for major donors featuring *The Human Spark* producer Chedd Graham and host Alan Alda with University of Minnesota faculty, Martha Tappen and Michael Wilson

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INTRODUCTION

Supported in major part by the National Science Foundation, *The Human Spark (THS)* project includes a three-part national PBS television series hosted by Alan Alda and a multifaceted outreach initiative to engage public television stations and their partner science museums nationwide in order to extend the utilization and impact of the project. As an independent evaluator, Multimedia Research was contracted by Thirteen to capture how the collaboration between television station and science museum outreach grantees and their respective outreach activities meet the stated goals of the outreach project. The overarching goal of this report is to identify best practices for supporting collaborations of local PBS stations and museums to implement informal science outreach activities involving video.

Goals and Implementation of *The Human Spark* Outreach Initiative

The goals of the collaborative outreach initiative as stated by LAB@Thirteen, Thirteen's Educational and Community Outreach Department, were to:

- ❖ create a new standard for collaboration between science museums and public television stations;
- ❖ increase knowledge about how science museums can use quality video resources in engaging the public in better understanding of science;
- ❖ create a new model to build adult museum and station audience membership; and
- ❖ encourage collaboration that leads to benefits that continue for years.

In order to achieve the above goals, LAB@Thirteen sought to address three challenges that have been reported in past collaborations of museums and public television stations: 1) provision of adequate financial support; 2) provision of adequate time to develop a plan and effectively execute the plan; and 3) provision of video and other materials that complement rather than complicate museum collections and events schedules. To this end, LAB@Thirteen implemented the following actions:

- ❖ [Initial PBS Station/Museum Partnership Proposals](#): In early March of 2008, about 18 months prior to the intended air date of *THS*, LAB@Thirteen posted nationwide a Request for Proposals (RFP) to Public Broadcasting stations to apply for a first round of \$35,000 outreach grants for *THS*. The RFP asked stations to partner with a local science museum or center and brainstorm strategies for integrating *THS* video and accompanying resources into museum and community activities. The partnerships were asked to create potential collaboration ideas, strategies for local promotion and publicity, possible special events, visions for local fundraising, and tactics for involving underserved audiences.
- ❖ [Tier 1 Collaboration Grants](#): Fourteen Tier 1 applications were received. In April, 2008, three were chosen to receive grants of \$35,000, to be split into \$10K for the station partner and \$25K for the museum partner, and promised participation of *THS* host Alan Alda in

one event per site. A fourth Tier 1 site received a grant of \$10,000 with no visit from Alan Alda. Tier 1 station and museum representatives attended a May, 2008, project launch meeting at Thirteen’s studios in New York City, during which the *THS* production team and Tier 1 representatives discussed potential models for collaboration and shared strategies for integrating the series into long-range plans and activities. Over the subsequent nine months, with an undefined series’ air date, the paired Tier 1 organizations developed a comprehensive collaboration plan for events, exhibit materials, activities, and promotions to support the *THS* outreach initiative. Each site was encouraged to construct plans that took advantage of their unique local assets, that proposed strategies to increase membership at both organizations, and that identified other local partners to expand the reach of the project into the community. Site collaboration plans were submitted to LAB@Thirteen in March, 2009. Table 1 presents Tier 1 sites.

Table 1. Tier 1 Outreach Sites

Public Television Stations	Science Museums
Eight/KAET	Arizona Science Center, Phoenix, AZ
Fort Wayne Public Television	Science Central, Fort Wayne, IN
Twin Cities Public Television	Science Museum of Minnesota, St. Paul, MN
University of North Carolina Center for Public Television	North Carolina Museum of Natural Sciences, Raleigh, NC

- ❖ [Tier 2 Collaboration Grants](#): Informed by outreach ideas in the Tier 1 site collaboration plans, LAB@Thirteen created and distributed in April, 2009, an RFP for an additional five station/museum partnerships to receive a \$10,000 grant to implement an appropriately scaled-down set of activities, events, and materials in support of the *THS* series broadcast. Tier 2 sites did not have access to on-site appearances by host Alan Alda, and the distribution of the \$10,000 between the organizations was not pre-determined by LAB@Thirteen. Seven applications were received, and five sites received a grant in July, 2009. Table 2 presents Tier 2 sites.

Table 2. Tier 2 Outreach Sites

Public Television Stations	Science Museums
KOCE-TV	Discovery Science Center, Santa Ana, CA
Nashville Public Television	Adventure Science Center, Nashville, TN
WEDU – Florida West Coast Public Broadcasting	Museum of Science & Industry, Tampa, FL
WVIZ/PBS ideastream	Great Lakes Science Center, Cleveland, OH
WXXI Public Broadcasting	Rochester Museum and Science Center, Rochester, NY

- ❖ [Outreach implementation](#): In June, 2009, Thirteen learned of an intended air date of November, 2009; however, in September, *THS* producers were informed that the series would actually air in January, 2010. Unfortunately, many museum event dates, including Alda’s visits, could not be postponed to mesh better with the new air dates. Thirteen provided station screeners of the three episodes from which stations could select segments they thought would be most useful for their outreach plan. All sites received video segments, a video trailer, bookmarks, postcards, poster, and *THS* web content. Station and museum

partners implemented their jointly developed outreach plans from October, 2009, through February, 2010. PBS aired the three *The Human Spark* episodes in January, 2010. Station and museum websites with local information and links to the national PBS *THS* website continue indefinitely in most sites.

- ❖ **Communication Mechanisms:** Throughout the above process and continuing through the outreach implementation, communication among LAB@Thirteen staff and sites was supported by phone calls, emails, and use of Basecamp, a web-based project collaboration tool. Stations and museums provided feedback and ideas to Thirteen about their needs and interests for print and video materials to support their local initiatives. This information facilitated the creation of appropriate print and video assets distributed to the nine sites.

METHODOLOGY

Station and museum partners responded to two questionnaires to describe the *THS* outreach portfolio and the successes and challenges of the collaborations.

After implementation of the planned outreach activities, the station and museum partners listed in Tables 1 and 2 completed two sets of online questionnaires to explore the effectiveness of the outreach collaborations.

Together the partners completed the first questionnaire to establish for each planned outreach activity what was done, with what *THS* materials, when, by whom, for whom, and with what reach. The second questionnaire presented a set of questions for the station representative and the museum representative to reflect independently on the collaboration between the partners.

When deemed necessary, Multimedia Research followed up with emails to respondents for clarification and elaboration of questionnaire responses. “*Italicized quotes*” in this report are drawn from responses to both questionnaires and are minimally edited for clarity. Specific names of museums and stations have been replaced by the more anonymous ‘Museum’ and ‘Station’ designations, reflecting a promise of confidentiality to obtain frank and complete responses.

Qualitative and quantitative analyses of the outreach events or activities and questionnaire responses address the following general questions of interest:

- What range of outreach activities and events were implemented?
- What audiences of what size and composition were reached?
- How did organizations leverage their internal resources?
- How did organizations engage their unique local partners and assets?
- How were outreach resources, particularly *THS* video, integrated into museum activities?

- How did an appearance by host Alan Alda affect outreach efforts?
- Did outreach activities increase membership at either or both organizations?
- Was Thirteen’s financial support adequate and was local support obtained?
- What non-financial support aided integration of *THS* materials into the museum setting and what else was needed?
- Was there adequate time to plan and implement outreach effectively and what would the ideal timetable be?
- How well did communication mechanisms set up by Thirteen support the collaboration?
- What is the value of *THS* collaborations between museums and stations?
- What is the ‘ripple effect’ of this collaboration between museums and stations?

WHAT RANGE OF OUTREACH ACTIVITIES AND EVENTS WERE IMPLEMENTED?

Over five months, 42 outreach events and activities were implemented at nine sites, including promotion within non-*THS* events; *THS* video screening and discussion events; museum exhibits; long-format television and radio productions; and online social media.

The nine station and museum partnerships presented 42 outreach activities and events from October, 2009, through February, 2010. Tier 1 sites implemented 25 activities and Tier 2 sites implemented 17. On the next pages, Tables 3a – 3h sort the outreach into different types and present brief descriptions of the events and activities.

Table 3a describes 11 efforts by 4 sites “to piggyback promotion of *THS*” at events held for purposes not specific to *THS* like regional educator conferences or discount admission days at museums. Sites felt that this type of outreach for a diverse general public and teachers raised awareness of the series, online resources and upcoming *THS*-specific outreach events. The benefits for the institutions were to “provide publicity of the partnership” and give each organization “exposure and access to a wider audience.”

Table 3a. Promotion within Non-*THS* Events for Educators and/or Public

Audience & Location	Date	Tier 1 or 2: Brief Description	<i>THS</i> Resources Used or Distributed
Adult public at museum	Nov 2009	1: Within a monthly after-hours event involving food, drink, music, exhibits, and viewing of a cult-classic film, the museum informed young adults (200) of <i>THS</i> and made available bookmarks, postcards, posters, rack cards and a museum-based <i>THS</i> exhibit.	Bookmarks Postcards Posters, Video segments (within exhibit)
Adult educators at museum	Oct 2009	2: At professional development event for teachers (483), museum distributed local flyer to advertise <i>THS</i> series dates and <i>THS</i> science café.	
	Dec 2009	2: At professional development event for teachers (60), museum distributed postcards, posters, and local flyer to advertise <i>THS</i> broadcast dates and <i>THS</i> science café.	Postcards Posters
	Jan 2010	1: At teacher reception (350) at museum, station staff manned table and distributed bookmarks and postcards	Bookmarks Postcards
Adult educators at off-site conference	Nov 2009	2: Museum manned vendor booth at regional science education conference attended by educators (~5000) and also hosted evening social event (193). Postcards, posters and local flyer advertising <i>THS</i> series dates and <i>THS</i> science café were distributed.	Postcards Posters
	Dec 2009	1: Station shared a vendor booth with WGBH Teachers' Domain within a regional science education conference attended by educators (~2000) and distributed bookmarks, postcards, posters and demonstrated web resources.	Bookmarks Postcards Posters Web content
Families at museum	Dec 2009	1: During special event for museum visitors (~2400), museum distributed bookmarks and posters and showed 30-sec trailer in theater.	Video trailer Bookmarks Posters
		2: During a day of discounted admission to visitors (~3,000), station staff displayed in the museum lobby a full-length <i>THS</i> program, discussed content with interested visitors and distributed <i>THS</i> material.	Full-length program, Bookmarks Posters Postcards
	Jan 2010	1: During free day for museum visitors from area community (~1400), museum distributed bookmarks and posters and showed 30-sec trailer in theater.	Video trailer Bookmarks Posters
Families at off-site event	Nov 2009	2: Station manned vendor table at regional children's book festival attended by local families (~5000) and distributed bookmarks, postcards and flyer to advertise series dates and <i>THS</i> science café.	Bookmarks Postcards
	Dec 2009	1: Station participated as key sponsor in a regional science education community event attended by local families and community members (~600), distributed bookmarks, postcards, posters and demonstrated web resources.	Bookmarks Postcards Posters Web content

Eight reception and video screening events specific to *The Human Spark* content were held by seven sites (Table 3b below). Sites described the benefits for attendees as increasing awareness of the *THS* broadcast, expanding knowledge about *THS* content, and also at some events engaging with experts and gaining an awareness of local content expertise. Benefits for the institutions were described variously to provide an “*opportunity to showcase the strengths of our partnership to the public,*” “*to gain community visibility for activities in science education,*” and “*to deepen the working relationship in content education and expand the relationship in terms of joint promotion and major donor work.*”

Table 3b. *THS*-specific Reception and Video Screening Events

Audience & Location	Date	Tier 1 or 2: Brief Description	<i>THS</i> Resources Used or Distributed
Adult donors at museum	Oct 2009	1: Museum and station donors (~140) attended reception event, participated in 7 <i>THS</i> related hands-on activities and 3 demonstrations, viewed video, listened to Alan Alda and producer Graham Chedd and participated in Q&A.	Video segments Host & Producer
		1: Museum and station donors (236) attended reception event, viewed video, listened to panel discussion and participated in Q&A that was moderated by a station program host with Alan Alda, Graham Chedd and two local professors.	Video segments Host & Producer Bookmarks, Postcards, DVDs of local video
		1: Museum and station donors (~200) attended reception event, viewed <i>THS</i> exhibit, watched video, listened to panel discussion and participated in Q&A that was moderated by a station program host with Alan Alda, Graham Chedd and four local professors, including one featured in <i>THS</i> . Panel discussion was taped for airing on station in Jan, 2010.	Video segments Host, Producer Scientist interviewee Bookmarks Postcards
	Jan 2010	2: Museum and station donors (~100) attended reception event and viewed video trailer and clips.	Video trailer & segments, Posters Postcards
Adult educators & public at museum	Jan 2010	1: Area adult educators and adult public (~80) attended reception event, participated in Human Spark related hands-on activities and demonstrations, viewed video clips, listened to producer Jared Lipworth and participated in Q&A.	Video segments Producer Bookmarks Postcards, Posters
Adult public at museum	Jan 2010	2: Adult public (~100) with a few families attended reception event, viewed video clips, listened to presentations from two local professors and participated in Q&A. Museum exhibits subsequently open to attendees.	Full-length programs Video segments Bookmarks Postcards, Posters
		2: Adult public (160 ¹) attended reception event, viewed video clips, listened to presentations from local professor and museum scientist and participated in Q&A.	Full-length programs Video segments Bookmarks Postcards, Posters
Adult public at library	Feb 2010	1: Adult public (~75) attended session of a professional explaining genetic genealogy, which answers the ‘where did I come from’ question. Full length video programs were shown in library’s auditorium on the day of the session.	Full-length programs Bookmarks Posters

¹ Although the site described this event as a “science café,” the size of the audience alone puts it outside the definition of the intimate café events that appear in Table 3c, so this event was classified as a reception and screening.

Two sites ran five science cafés, which are relatively small public get-togethers in casual settings involving informal conversation with a scientist. Using *THS* video as a catalyst, expert speakers gave brief presentations to kick off general questions and discussion. The public benefit was “to encourage the community to talk about science and to increase audience awareness and enthusiasm for the series.” For the organizations themselves, the benefits were to strengthen ties with local experts and promote institutional support as membership information was distributed at all the cafés.

Table 3c. *THS* Science Cafés

Audience & Location	Date	Tier 1 or 2: Brief Description	<i>THS</i> Resources Used or Distributed
Adult public at restaurant	Oct 2009	1: Museum offered a “Human Spark” themed science café for adults (35) in partnership with the local Sigma Xi chapter that runs the monthly café. A speaker from the National Humanities Center presented, followed by discussion. The moderator announced <i>THS</i> series and <i>THS</i> material was made available to attendees.	Bookmarks, Postcards
Adult public at museum	Oct & Nov 2009	2: Museum and station offered two “Human Spark” themed science cafés for adults (25 each = 50). Attendees viewed <i>THS</i> video segments, heard from a local professor and participated in discussion and Q&A.	Video segments, Bookmarks Postcards Posters
Adult public at restaurant	Jan 2010	2: Station offered two “Human Spark” themed science cafés for adults (25 each = 50). Attendees viewed <i>THS</i> video segments, heard from a local professor and participated in discussion and Q&A.	Video segments, Bookmarks Postcards Posters
Adult public at library			

Two Tier 2 sites each provided a formal educational workshop for teachers and students (Table 3d). Teachers benefited by being exposed to resources for the classroom. For underserved students, “the program enabled the opportunity to engage in experiences outside of the classroom and sparked their curiosity in what it means to be human.” For the organizations, the benefits were to make connections with teachers and students and promote both institutions’ educational initiatives.

Table 3d. *THS* Formal Educational Workshops

Audience & Location	Date	Tier 1 or 2: Brief Description	<i>THS</i> Resources Used or Distributed
Students & their teachers at Museum	Dec 2009	2: Museum staff provided educational activities for ten biology teachers and 200 students from local Title 1 high schools. <i>THS</i> video segments served as the catalyst for a full day of interactive activities, demonstrations and discussions of what it means to be human. Teachers were asked to use the web site prior to the day to prepare students.	Video segments Bookmarks Postcards Posters Web content
Adult educators at station	Jan 2010	2: At the station, area adult educators (24) viewed preview clips of <i>THS</i> and web content and in roundtable fashion shared “what is your spark,” with discussion of ways that technology can be used to help students share their spark.	Video segments Bookmarks Postcards Posters Web content

Table 3e describes two other outreach events that were implemented specifically for *THS* but did not involve *THS* video screening as did events in previous Tables 3b – 3d. The benefits for the public were increased awareness and knowledge of the content areas; whereas the organizations hoped to increase their visibility and support among new audiences.

Table 3e. Other *THS* Outreach Events

Audience & Location	Date	Tier 1 or 2: Brief Description	<i>THS</i> Resources Used or Distributed
Theatergoers at university theater	Nov 2009	1: Station, museum and university presented play (<i>Re: Design</i>) that dramatizes correspondence between Charles Darwin and Asa Gray with particular reference to implications of their scientific work on their personal beliefs and religious belief in general. The opening night performance of the play was followed by a panel discussion featuring four local scientists. An entire university class attended the panel discussion performance, and 282 tickets were sold over five performances.	Bookmarks Postcards Posters
Museum visitors at museum	Feb 2010	1: Visitors (~300) made DNA model, learned about county ancestry, attended session at which expert traced DNA history of two local people and led discussion about human origins.	Bookmarks Postcards Posters

Three Tier 1 sites developed *THS* exhibits or added to an existing museum exhibit. The exhibits were intended to raise public awareness and promote discussion and knowledge of human spark content in both national and localized contexts. The benefit of exhibits to the organizations is to extend the impact of the outreach as long as the exhibit remains on the museum floor.

Table 3f. *THS* Museum Public Exhibits

Audience & Location	Date	Tier 1 or 2: Brief Description	<i>THS</i> Resources Used or Distributed
Museum visitors at museum	Oct-Nov 2009	1: Museum and station developed <i>THS</i> exhibit for visitors (~93,000 during exhibit run) to view at entrance to a 265-seat auditorium showing the chimpanzee film “Almost Human.” The exhibit featured Alda’s <i>THS</i> introductory video; a montage of locally produced video clips of “people on the street” answering the question “what makes us human;” and artifacts interpreting the human spark story (i.e., Neanderthal skull replica, modern-day human brain model, Darwin literature). Rack cards detailing <i>THS</i> activities available.	Video segments Bookmarks Postcards Posters Station produced video
	Oct, 2009 - on-going	1: Museum developed <i>THS</i> kiosk in the Human Body Gallery, featuring <i>THS</i> video segments; station-produced video highlighting the work of local experts; audio segments where three experts answer the question “what is the human spark;” and a magnetic board with magnetic words to permit visitors to reflect on the same question. Extrapolating from annual visitation, about 260,000 or so visitors had access to the kiosk in Oct-Jan when this site implemented its outreach events and broadcasts.	Video segments Web content Station produced video
	Feb 2010 - on-going	1: Station produced six one-minute video interviews of local physicians (geneticists, psychiatrists, surgeon) to supplement an existing museum exhibit about genes and their significance in our lives. Extrapolating from annual visitation, about 6000 or so visitors had access to the exhibit videos in February when this station was airing <i>THS</i> episodes.	Station produced video

Stations produced promotional interstitials for *THS* but the four Tier 1 stations also produced long-format television or radio programs, as described below in Table 3g. Beyond promotional value, the benefit of the local productions for the public was to make the human spark content more engaging by connecting it to local experts and issues. The radio broadcasts in particular were intended to involve the public more intimately with the subject through call-in opportunities.

Table 3g. Long-Format Mass Media

Audience & Location	Date	Tier 1 or 2: Brief Description	THS Resources Used
PBS viewers, in local broadcast area	Oct 2009 Jan 2010	1: Station produced and broadcast three segments for its weeknight information magazine program, featuring interviews with local researchers and one <i>THS</i> on-air interviewee on topics related to the human spark. Segments promoted <i>THS</i> air dates. The three broadcasts received respectively about 4,000, 6,000, and 3,000 viewers, so 13,000 viewers were exposed.	<i>THS</i> on-air interviewee
	Jan 2010	1: Station and museum produced and broadcast a 30 minute program as a companion to <i>THS</i> series. The program featured local researchers and one <i>THS</i> on-air interviewee discussing their work on chimpanzee behavior, our earliest human ancestors, Neanderthal social development and the emergence of modern humans. The program aired six times in January on three station channels. About 34,641 households viewed the main channel program; ratings are not available for secondary channels.	<i>THS</i> on-air interviewee
	Jan 2010	1: Station edited a videotaped panel discussion on “what makes us uniquely human” at a local museum/station donor screening event with Alda, Chedd and local scientists (Table 3b). The one-hour program aired locally after Jan 6 premiere of <i>THS</i> series and reached 24,202 households.	Host & Producer, <i>THS</i> on-air interviewee
	Jan 2010	1: Station produced in-studio panel discussion of <i>THS</i> topics with local physicians. Program aired following third <i>THS</i> episode and reached about 20,000 households. These physicians also appeared in station-produced video shorts, which were used to promote <i>THS</i> episodes and to supplement an existing museum gene exhibit (Table 3f).	
Radio listeners in local broadcast area; Web listeners	Jan 2010	1: Station’s on-air radio host interviewed by telephone producer Graham Chedd and a local zoo scientist who appeared in <i>THS</i> series. The live talk show is archived on the station’s website. The show promoted the <i>THS</i> broadcast.	Full-length video programs (to prep host), Producer, <i>THS</i> on-air interviewee
		2: Station produced one-hour of a regular call-in talk show on AM station, which was aired live once and repeated once as well as streamed on web and archived as a podcast. On-air radio host interviewed a local university researcher and a museum scientist about topics in <i>THS</i> programs. Show promoted <i>THS</i> air dates and local <i>THS</i> events. The talk show had 25,000 listeners on the initial live broadcast and re-air the same day.	Full-length video programs (to prep host and interviewees), Web content

All sites placed some *THS* PBS content on their organization website and included links to Thirteen’s main *THS* website. Table 3h below describes how five sites added their own local value to their *THS* websites, mostly in the form of social media in which users generated content. For the public, these value-added local websites were the “*collection of the project*,” presenting all local outreach events and links to series’ resources as well as promoting deeper user content involvement and commentary. To benefit the organizations, the websites provided links to membership and other PBS/museum content areas/events and provided publicity of the partnership and exposure for underwriters. The ongoing availability and archiving of websites also extends the life of the *THS* project.

Table 3h. Station/Museum Local Websites

Audience & Location	Date	Tier 1 or 2: Brief Description	THS Resources Used
Web users	Jul – On-going	<p>2: Station conducted a live online chat event after the first January <i>THS</i> program’s premiere broadcast. The broadcast was tagged at the beginning and end of the broadcast, attracting 33 users to log on and 20 to ask online questions of a university scientist and a museum scientist.</p> <p>The station’s website also included series and tune-in information; links to the PBS <i>THS</i> site and station’s Facebook, Twitter and Youtube connections; information and registration for <i>THS</i> museum event; and on-demand players for video, radio, and online chat archived <i>THS</i> shows. During the period of July-Jan, 840 unique page views were reported.</p>	Video segments Web content
	Oct - Dec 2009	<p>1: Station conducted a digital photography contest on Flickr. The contest showcased what the photographer interpreted “the human spark” to be. Participants (43) submitted entries in one of three categories: Professional, Amateur, and Youth, and three winners were recognized and received awards at the museum partner’s <i>THS</i> screening event.</p>	Video segments Web content
	Oct - On-going	<p>1: Museum connects their current science website to a <i>THS</i> kiosk on museum floor (Table 3f). The web section includes text explaining the main themes of the series with associated <i>THS</i> video segments; local scientists’ text answers to ‘what is the human spark;’ blog posts; and the ability for web users to post their own thoughts and comments. During the period of Oct-Jan, there were 440 unique page views from outside the museum proper, and times ranged from an average of 31 seconds on a blog discussion to 2:38 minutes on the “Evolved to Teach” page.</p>	Video segments Web content
		<p>1: Station’s website includes series and event and tune-in information, links to PBS <i>THS</i> site and station’s Facebook and Twitter connections; video clips of 13 local people talking about “the human spark;” videos of screening panel event at museum (Table 3b), and video of extended Q&A at screening event. During Oct-Jan, there were 145 unique page views of the dedicated human spark page, and an average time spent of 4:34 minutes.</p>	Video segments Web content
		<p>2: Station’s website includes series and tune-in information, links to PBS <i>THS</i> site, a video invitation to a local museum event, and links to related museum exhibits. During the period of Dec-Jan, there were 465 unique page views, and average times spent of 2:23 in December and 1:11 in January.</p>	Web content

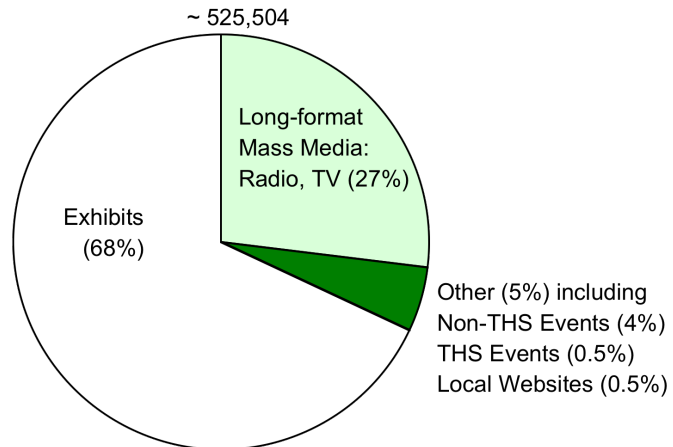
WHAT AUDIENCES OF WHAT SIZE AND COMPOSITION WERE REACHED?

Over half a million people were exposed to *The Human Spark* through the various outreach efforts. Although few events were planned specifically for non-traditional audiences, public broadcasts and venues geographically situated near young adults or minority populations attracted these groups proportionally.

Audience Size

Based on numbers provided by outreach site representatives, the full range of outreach promotions and events possibly exposed over half a million people to the existence and contents of *The Human Spark* project. This audience estimate does not include those who watched the three *THS* episodes. Figure 1 below indicates that the largest audience proportion (68%) was potentially exposed to museum exhibits, based on monthly museum visitation numbers from October to February. Another 27% of the public likely experienced the mass media outreach broadcasts on television and radio. The remaining 5% included participants in non-*THS* events (4%), *THS*-specific events (0.5%) and users of value-added local *THS* websites (0.5%).

Fig. 1. Estimated Audience Sizes for Tables 3a - 3h



The sizes of audiences involved in the outreach activities were reported as comparable to other similar activities with few exceptions. Only 5 (13%) of the 42 activities did not match expectations given previous experiences with the type of event. Two of the five activities exceeded expectations and three elicited lower audiences than expected:

- A community event accompanying an educators' conference "*exceeded our expectations!*"
- A January museum screening event exceeded expectations and actually "*exceeded the weekly attendance at the [museum] the week before.*"
- An October museum screening event with Alda and Chedd for donors "*seemed somewhat low.*"
- A science café site that meets monthly gathered lower than expected attendance.
- The Flickr-based digital photography contest prompted fewer than expected submissions compared with a previous contest, possibly because "*it was a challenging topic.*"

Audience Composition

Because of the anonymous aspect of the Figure 1 audiences for [mass media](#) and [local website](#) categories, we are not able to ascertain the actual composition of these audiences. However, as one site describes, these components were “*designed to reach diverse and underserved audiences by giving them greatest ease of access to the content.*” All of the television station broadcasts are “*available to a cross section of educational and economic levels, ages and ethnic backgrounds.*” Additionally, the social interactive media tended “*to attract a younger more tech-savvy audience*” through the use of Facebook and Twitter promotions.

Fig. 2. Audiences attending non-THS events
~20,686 from Table 3a/Fig. 1

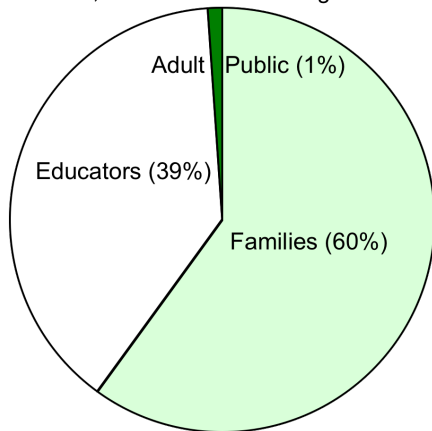


Figure 2 shows that the 4% of audiences reached in [non-THS promotional events](#) attracted 60% families and 39% educators. Sites reported that of the 11 non-THS events, five (45%) activities attracted non-traditional publics, who were thus exposed to information about the THS broadcasts, website and related events. These audiences included younger adults, adults without children, lower income populations, and racially diverse populations. For example:

Tier 1: “[These] events typically attract crowds that do not normally visit the Museum for traditional purposes, such as college students, young adults and professionals without children...Museum staff informed audiences about the Human Spark project and made rack cards and other Human Spark literature available...[This non-THS event] was specifically designed to reach teens, young adults and urban professionals with off-beat vibe and ‘fun’ atmosphere.”

Tier 1: “[The museum free day drew from a community in which “77% is Hispanic with a median household income of \$40,412.”

Tier 2: “[The museum discounted day reaches] underserved audiences who typically don’t visit or can’t afford to visit the museum at regular rates. The audience included black, Hispanic, and Asian families.”

Tier 1: “At least 50% or more of the community event was from the diverse and underserved public.... and there were a few educators who brought entire [Title I] classes to the community event. We also have a racially/culturally diverse community – 45% Hispanic, 15% Native American, 5% African American, 30% Anglo, 5% other.”

Moreover, promotion at teacher events [indirectly](#) served diverse and underserved urban students and minority students, because informed teachers “*could take advantage of the broadcast and its resources in their classrooms.*”

Fig. 3. Audiences attending *THS* specific events
~2042 from Tables 3b - 3e

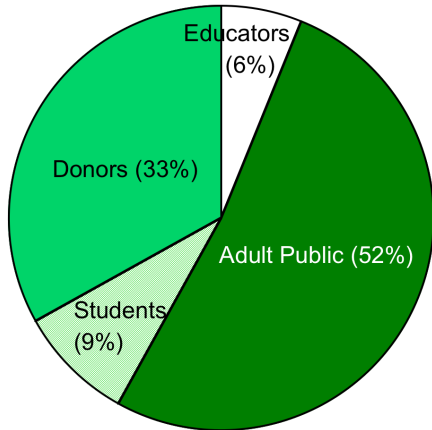


Figure 3 shows that *THS* screening, café, theater and formal educational events, which involved 0.5% of the total outreach audiences (Fig. 1), included 52% adult public and 33% donors.

Of the 17 *THS*-specific events contributing to Figure 3, nine (53%) activities attracted diverse and underserved audiences who were exposed to *THS* video, content discussions, and promotional materials. The non-traditional audiences were represented mostly by the 20-something singles group that museums have a hard time reaching and to a lesser extent the communities' lower income and/or minority populations. For example:

Tier 1: *"The play was promoted primarily to the university student body.... Sponsoring the play was a unique way to reach an elusive target audience [college students].... This activity was designed primarily for this audience."*

Tier 1: *"Our diverse/underserved audience is young adults, a demographic that typically shies away from science programming. Science Cafés are specifically designed to reach young adults and urban professionals who do not typically attend the Museum by hosting the lecture at a popular pub in a trendy downtown location."*

Tier 2: *"Our human spark discussions [at Science Cafés] were led by an expert university professor so we were able to attract the college students from the universities....50% of our participants were college students. One person of color....Most of the students had never been to the museum."*

Tier 2: *"The station promoted [the weekend screening] through free newspapers that list events. We distributed information through urban branch libraries. We also promoted it through agencies that serve underserved audiences. Some staff from those agencies attended or watched the series but did not have much luck in drawing in their clients and customers....The museum also promoted the event through their lecture series, on their website, and with posters in exhibit halls....16% of attendees were under 30, which is not the usual demographic that attends such events at the museum or station."*

Tier 2: *"[Promoted via TV spots, the website, and museum flyers, the weeknight evening screening had] a variety of ethnicities represented, roughly proportional to the region.... There were singles across a large age range, couples and a few families with kids."*

Tier 1: *"[Promoted to Title I school educators and the museum e-mail list, the weeknight evening screening] did reach a diverse group of individuals. Because the museum is not normally open after 5PM and because there was no fee for admission this allowed underserved and diverse members of the public to attend."*

Tier 2: *"The participating schools [in the museum's formal educational workshop] were all Title I schools focusing on underserved students. All schools have a diverse population with a minority rate of 70%. A full house of over 200 students and teachers participated in the event."*

Tier 2: *"Many teachers in attendance [at the teacher roundtable] serve students in diverse and underserved schools."*

HOW DID ORGANIZATIONS LEVERAGE THEIR INTERNAL RESOURCES?

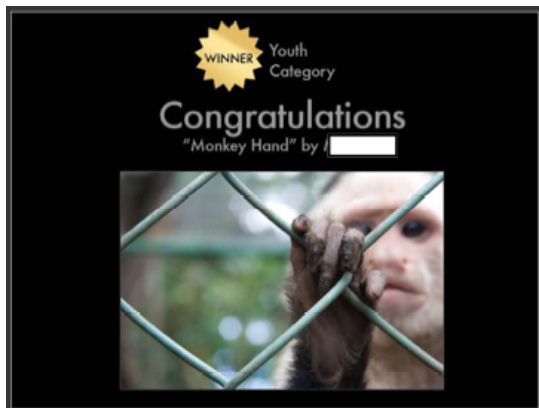
To promote both broadcast viewership and participation in outreach events, organizations drew heavily on their in-house resources of technology, airtime, event planning, programming and exhibit design.

Technology Resources

Internet communications were a commonly used internal resource to promote *THS* series and outreach events. Sites “used the national website as a model for available content and then crafted the local website to feature both the national content with the local outreach partnership and local production of content.” The main goal for leveraging Internet resources was primarily “to promote viewership of the series [and] participation in the outreach” and secondarily for some websites “to engage the audience in conversations around the topics.” On their local websites, all stations and museums posted national content and/or links to the PBS series main website and promoted their local tune-in information, outreach events and *THS* associated museum exhibits.

To engage the public more intensely, some sites utilized the social media qualities of the Internet to elicit and post user-generated content (Table 3h). “To promote discussion via social media between online visitors regarding the series content,” sites included an online user comment section.

One station ran an online digital photography contest on Flickr with 43 entries “to spur interest and imagination around the programming.” The winning photo for the youth category appears below.



One station implemented a live online chat after the *THS* premiere broadcast and archived the “conversation” on their website. The illustration below shows the main characteristics of a live online chat: a moderator, user questions, responses from local experts, and polls of users. In this chat, 33 users signed on and 20 asked questions.

9:07	Moderator	How about another question. This one from Dan...
9:07	[Comment From Dan S.]	I think the video concluded that the deciding difference between neandertals and humans was the human ability to communicate, and we can see the results of that culture of communication today, with things like the internet and television. So, hypothetical question: if the neanderthals had somehow thrived instead of the early humans, and advanced to our level of intelligence, how would an advanced neatherthal-based society be different or similar to ours?
9:09	Local Scientist	Actually, recent genetic research suggests that Neanderthals were quite capable of speech. This is reinforced by skeletal material (hyoid bone) as well. In short, we need to look at other things to distinguish the two forms of humans.
9:09		<p>Did you just watch "The Human Spark" on [redacted] before coming to this chat?</p> <p>Yes, I just watched the whole program. (74%)</p> <p>Yes, but I only caught part of it. (16%)</p> <p>No, but I saw it earlier. (0%)</p> <p>No, I did not watch it. (11%)</p>

A few sites also used social media links to Facebook, Twitter and Youtube to drive younger traffic to the series and events and to encourage wide-ranging discussion, as in the following Facebook page:

Station Logo [Station] Tonight at 8 PM, on [Station]



Alan Alda Hosts 'The Human Spark' on PBS – NYTimes.com
www.nytimes.com
Alan Alda gets another chance to deploy his participatory brand of science journalism with the three-part PBS program, "The Human Spark."

January 6 at 11:35am · Share

Cindy [redacted] likes this.

 **Ronald [redacted]** great show, I live in [redacted] now . surprised to see something like this coming out of this state. everyone is so religious in this state that when I try to talk anthropology, or genetic links between animals and humans they all want to attack me. Consequently I have no friends here. It's lonely having a high I.Q. and no formal education.
January 7 at 1:33am · Report

 **Denise [redacted]** Ron, I don't know where you live, but all of [redacted] is not like that
January 7 at 10:49am · Report

 **Robert [redacted]** Dude, just because most of us believe in god it does not mean we are all backwater hicks. Remember that all educational and intellectual advances have come out of the church. Our universities were founded by churches. It is true that it has also hindered understanding at times but the latter is far less frequent. You may have no friends here because we know a condescending moron when we see one. Get off of your couch and seek intelligence.
January 8 at 10:36pm · Report

 **Janis [redacted]** Ronald, try the UU churches in the [redacted] – you will find many people who have much in common with you – or any of our 3 major universities here. [redacted] is pretty enlightened too. And you might like [redacted].
January 9 at 9:51am · Report

Although the numbers participating in the user-generated interactive areas were significantly smaller than page views of *THS* main pages, the sites attained their Internet goal “to promote discussion about the scientific content, knowledge of the series and outreach and allow interested audiences to access the series as it happened or after the fact.”

[Video production capabilities](#) were leveraged by three of the four Tier 1 stations to produce long-format *THS*-related videos that reached about 92,000 viewers (Table 3g). To “*create even greater relevance of The Human Spark*” to its local broadcast community, one station interviewed local researchers to produce a half-hour show as a companion to Thirteen’s *THS* series. The locally produced program aired six times during *THS*’s broadcast month. The station noted that “*one advantage to creating our own companion broadcast program is that there are no right issues so we are able to do much more with it across the community over a longer period of time than what we could have done with the WNET Human Spark work.*”

Another station videotaped a panel of local physicians to broadcast after the third *THS* program and to provide video shorts to supplement an existing museum exhibit and promote *THS*:

Tier 1: “Station produced an in-studio program that aired following the third episode of THS series on January 20. The panelists included physicians who discussed the topics covered over the three part series. These medical personnel were also the presenters in Your Unique Spark minutes that aired across the days and weeks on station’s main and sub-channels. The minutes helped extend the value and impact of the national series, localized the series through the physician spokespersons, and aided in promoting the other community outreach events taking place around THS.”

Also to provide local flavor for *THS* series, a third Tier 1 station produced short segments for its weeknight information magazine program featuring interviews with local experts and additionally produced a long format program of a screening panel event with local experts that took place at the partner museum, as illustrated below. The one-hour panel event was broadcast after *THS*’s first episode, and it and a half-hour extended Q&A podcast were posted on the station’s website.



Airtime Resources

All stations promoted the *THS* episodes and outreach events on air “*to create tune in for the series. Promote attendance at science center event. Promote station and science center collaborations. Promote attendance generally at science center.*” As noted above, three Tier 1 stations reported using significant [television](#) airtime to view the series through a local lens by presenting the views and research of local professionals about the human spark and by publicizing their lo-

cal museum partners. Additionally, one Tier 1 and one Tier 2 station leveraged existing live [radio](#) talk shows in which on-air hosts interviewed local experts about the human spark topics and promoted the television series and associated local outreach events (Table 3g). The live radio shows reached some 50,000 listeners and are also archived on station websites.

Event Planning Resources

The internal ability to plan and run large special events for donors, families, and teachers was key to many of the outreach activities, both as promotion within events planned for other purposes and as reception, screening, café and other events specifically for *The Human Spark* content. Four of the nine sites implemented promotions at eleven events and conferences planned for other purposes and reached an estimated total of 20,000 (Table 3a). The main goal at these events was “*to promote the series and outreach partnership events to an interested audience.*” All nine sites ran a total of 17 *THS*-specific events that drew about 2,000 participants (Tables 3b-3e). These events also had series promotion as a goal in addition to the various goals of providing local relevance through involvement of local experts; raising content awareness among teachers, students and families; creating a special reward for donors and members; and encouraging non-members “*to further loyalty and perhaps financial support.*”

Event planning resources from both stations and museums contributed variously to these events including [technology](#) resources for posting event publicity and registration on websites and mailing to e-lists; [public relations](#) expertise for designing, printing and distributing invitations, press releases and other promotional material; [catering](#) resources to provide food, drink, and/or music; [audiovisual](#) resources to support the viewing of *THS* segments and audience Q&A; and [staff](#) resources to man tables, distribute *THS* and locally produced promotional materials, coordinate experts and moderate panels and discussions. Questionnaire responses about the contribution of partners to public screening events illustrate the complex dance of event planning resources; e.g.:

Tier 1: “*The station and museum worked collaboratively in the planning of this event. Personnel from the station and museum met regularly in the months prior to the event to plan the implementation of the project, and the organizations shared the responsibilities. For example, the museum directed the selection of local scientist for the panel discussion, and the station production staff directed the panel content. The museum coordinated the catering and set-up for the reception, and the station handled invitations and registration. Both organizations provided information and staffed a membership table at the event, and representatives of organizations offered opening comments at the event. Both organizations promoted and encouraged event attendance through their individual outlets. The station designed “Human Spark” rack cards for the event, and the museum printed and distributed the cards. The partnership was a fair and balanced effort, with each organization tapping into its own area of expertise to contribute to the success of the event.*”

Tier 2: “*The museum provided the venue, the AV support, the caterer, and the expertise. The moderator for the event was [museum staff]. One of the speakers was [museum field researcher]. The museum also recruited our other speaker [from local university]. Museum public relations staff worked in concert with station public relations staff to promote the event. The station provided coordination of the project, promotion through websites, community calendars, press releases that were carried in two local newspapers, distribution of postcards and flyers to community locations, promos for TV, Radio and Youtube, social media postings, buckslips for mailings by [both organizations], template messages for email blasts, press releases to media entities and interview pitches, PR out to organizations of interest such as [local university] and other community organizations. The station provided online registration and phone support. The station provided support at the event with a registration/information table [and] provided media support for audience questions and conversation.*”

Programming and Exhibit Resources

Programming staff at a Tier 1 museum “created three distinct areas of hands-on activities to mirror the three episodes and three set demonstrations” to engage about 200 donors, educators and public attendees at screening receptions (Table 3b). At a Tier 2 museum, the educational programming staff used videos, activities and demos as catalysts for discussion about the human spark with 10 teachers and their 200 students during their museum workshop (Table 3d).

Additionally, three Tier 1 museums drew on their exhibit staff expertise to supplement existing exhibits with human spark content or to produce new *The Human Spark* exhibits for the museum floor (Table 3f). To an existing exhibit about genes and their significance in our lives, one museum added six one-minute video interviews produced by the local PBS station.

Another museum leveraged their already existing template for current science interactive kiosks and applied it to the human spark content. The kiosk, as photographed below, built on the museum’s *THS* web content and featured Thirteen’s *THS* video clips and PBS station-produced videos of local scientists addressing what the human spark is.

The photo below shows another Tier 1 museum’s exhibit, which pulled together *THS*-related artifacts and increased the potential attraction and impact of the exhibit by placing it near the entrance to an auditorium playing a film about chimpanzees. This exhibit also featured Thirteen’s *THS* video clips and PBS station-produced videos of local people-on-the-street explaining what makes us human.



HOW DID ORGANIZATIONS ENGAGE THEIR UNIQUE LOCAL PARTNERS AND ASSETS?

To help promote both outreach events and the broadcast series, *THS* organizations enlisted local universities, colleges, research centers, libraries and professional associations of teachers and scientists.

In addition to leveraging internal resources, the Tier 1 and Tier 2 organizations also reached into their community to promote the series and to engage and educate the public. The organizations drew on area universities, zoos and research centers to obtain experts and moderators for panels, cafés, locally produced video interviews, and radio talk shows; for example, within the space of a week, one pair of local experts participated in the station's radio talk show, the museum's screening event and a post-broadcast online web chat. Half (52%) of the activities in Tables 3a – 3h utilized live or taped experts to provide local interpretations and context for the human spark content.

A few organizations tried to reach a wider variety of people by holding *THS* events off-site at libraries and restaurants. One station that had not previously been involved in science cafés has committed to future such events:

Tier 2: One [café] was at the library during the day and another at a local restaurant in the evening. Both were very well attended.... The conversations lasted more than 2 hours at the library and beyond 3 hours at the restaurant. Both discussions could have gone on and on! The feedback from the participants has been wonderful and very enjoyable.... Due to the positive response, both the library and the restaurant have asked if we could facilitate these as ongoing monthly science meet-ups. The use of video is a tremendous benefit and really tied it all together."

Stations and museums also took serendipitous advantage of off-site educational events that occurred in their regions by hosting booths, tables and social events at regional science teachers' conferences and a book festival.

Additional unique opportunities were leveraged to contribute to the public's experience of *THS* outreach: A university theatre department hosted a "human spark" themed panel discussion after their premiere performance of a play about Darwin and Asa Gray, and a community college that helped judge the online digital photography "human spark" contest donated photography class scholarships for the winners.

HOW WERE OUTREACH RESOURCES, PARTICULARLY *THS* VIDEO, INTEGRATED INTO MUSEUM ACTIVITIES?

Museums used *THS* video for public screenings, exhibits and education, relating the material to existing museum themes. *THS* print materials of post-cards, bookmarks and posters were used as promotional giveaways.

THS Video

One of the major goals of the outreach initiative for *The Human Spark* was to increase knowledge about how science museums can use quality video resources in engaging the public in better understanding of science. Museums had major responsibility for 59% (25) of the 42 outreach activities listed in Tables 3a – 3h. Museums reported use of *THS* video in 68% (17) of these activities, either in screening, exhibits or formal education:

- ❖ The [full-length *THS* episodes](#) were used to prep local experts for screening receptions, panels, and science cafés. One museum played the episodes in their lobby during a discounted admission day.
- ❖ [THS video segments](#) were presented to attendees of screening events, science cafés and formal educational workshops as well as displayed on local websites and within two museum exhibits.
- ❖ The 30-second [THS video trailer](#) was used in a few museum screening events and also played prior to a film in one museum's theater.
- ❖ Video was least likely to be employed in events that were not specifically *THS* related, for example, at general events for teachers.

Questionnaire responses below illustrate the range of video integration by the museums. Integrating the video content was more natural for museums that had existing exhibits or resources that related to the *THS* themes. Note that the *THS* video acted as a catalyst for the development of hands-on activities and production of local video for exhibits thereby reinforcing the impact and expanding the audiences reached by the project.

Tier 1: *"The 30-sec promo was shown in the museum theater. Video segments were included on the web page and in the presentation by Alan Alda and Graham Chedd. Video segments and the web content were embedded in the Flickr groups [for the digital photography contest]... Using the video elements as a way to create exciting buzz for the series worked well for us. The ability to have a pre-screening of the episodes (with just a compilation DVD) was great. We were able to create some interactive elements [hands-on activities] based on the series as well as feature some of our existing exhibits on the brain and human interaction and psychology."*

Tier 1: *“Video segments were used for the preview screening and video for the museum display.... The museum was able to seamlessly incorporate Human Spark programming into its daily offerings. A Human Spark display was created using existing museum artifacts; a Jane Goodall film was shown daily during the exhibition of the display; a Human Spark-themed Science Café was offered; and a panel discussion was presented. Having the panel discussion broadcast by the station as well as uploaded onto iTunes University is an effective way to reach audiences that may not visit a museum.”*

Tier 1: *“Video segments were shown at our major donor event, on our website and in an “Exploring the Human Spark” museum kiosk.... The video clips were a great addition to the kiosk. This existing set of exhibit templates allowed us to create exhibit components on a limited budget.... The kiosks are available for purchase. All of the content is customizable. Any participating institution can make their own web content/audio/graphics.”*

Tier 1: *“Complementing a museum exhibit, the station created six one minute videos to present facts about genes and their significance in our lives.... The notion of “one idea, one minute” provides a reasonable time and editorial framework that can reach those visiting a museum as they move around the exhibits on the floor.”*

Tier 2: *“The full length video programs were used to decide 1) the segments that most closely related to exhibits at the museum; 2) what the guest speakers would talk about. The video segments were edited by WNET as directed by us. The easier part was in integrating [video] into our electronic pieces – web, e-newsletters, etc. Harder to integrate into exhibits.”*

Tier 2: *“One of the themes in our institution is health and the human body so the program is a perfect fit. The combination of a live presenter, video, and hands-on activities engage the audience in really thinking through the topics that are presented in the documentary.”*

Tier 2: *“Segments were springboards for discussion [at the Science Café], and the show itself was previewed by the speaker.... The Human Spark clips we screened made an impact by bringing our discussions to life.”*

Tier 2: *“While we do not have any strongly relating exhibits on display right now, it was a natural fit for our Lecture Series audience. It also matched well given we were already hosting events for several key target audiences in the same time frame.”*

Printed Material

Organizations reported distributing at almost all events Thirteen-produced *THS* bookmarks, postcards and posters as well as their locally-designed promotional rack cards and flyers. These promotional materials were particularly important giveaways for the non-*THS*-specific events such as education conferences, community events, and discounted and free admission days at museums. Quotes below illustrate that *THS* print material was mainly used to promote viewing of the broadcast series:

Tier 2: *“[We] distributed bookmarks, postcards and posters to encourage viewers to view the series.”*

Tier 2: *“[The flyer, posters, and postcards] were used as a pick-up promotion to inform, drive interest in the resources and series broadcast and to attract local audience to the science café.”*

For future projects, sites recommend providing print material that permits local museum/station co-branding as well as national PBS branding.

Lessons to Share about Video Resources

To use video resources effectively in the museum setting, sites suggest connecting video content to museum mission and exhibits; developing complementary hands-on manipulatives and kiosks; providing short segments; supplementing with local speakers and locally produced video; and using live presenters with screenings.

When asked what lessons sites would share with other stations and museums about how to use video resources to engage the museum public in understanding science, the following themes were presented by more than one site:

- ❖ Look for connections of the video content to museum mission and exhibits; e.g., *“It is important for video to seem an essential piece, yet fit into the overall museum exhibit as just one aspect of the full exhibit area. When done well, the video enhances what the museum has to offer.”*
- ❖ Develop hands-on manipulatives to accompany video; e.g., *“We were able to create some interactive elements based on the series.”* Other sites suggested that Thirteen provide instructions for hands-on activities related to the programs rather than each museum developing such from scratch. Few museums developed *THS* hands-on activities.
- ❖ Use funding or obtain extra funding for kiosks. Only Tier 1 sites integrated video into museum exhibits. Two Tier 2 sites suggested the provision of kiosks in future outreach; e.g., *“We had a Human Spark promo that aired in the theater but it would have been a more direct communication piece to have a video kiosk with posters nearby dedicated to the new series,”* and *“It would have been nice to develop a permanent exhibit, possibly an interactive video kiosk, that could be installed on our floor.”* The outreach sites were not made aware that a Tier 1 museum (see kiosk quote on previous page) was developing a *THS* kiosk that was available for customization at other sites.
- ❖ Provide short segments in addition to the longer programs; e.g., *“Short segments with a hands-on activity work better than longer segments.”*
- ❖ Make the national video locally relevant by using local speakers and/or producing local video related to the content; e.g., *“The ‘people on the street’ interviews [about their human spark] were very engaging to the museum public, and definitely sparked interest in the subject matter and Human Spark series,”* and *“Video tells powerful stories. Creating local relevance generates even greater excitement.”*
- ❖ In video screenings, provide a live presenter; e.g., *“Having a live presenter with the video enabled the viewers to have meaningful discussion about the content,”* and *“Effective to watch science TV with large audience – something you don’t often do. You usually watch in your living room with your family at most, not with 100 people. Different dynamic and interesting. Then to follow with some content experts raised the level once more.”*

HOW DID AN APPEARANCE BY HOST ALAN ALDA AFFECT OUTREACH EFFORTS?

Host Alan Alda's appearance at three Tier 1 sites was used to reward station and museum donors.

An appearance by *THS* host Alan Alda was promised to three of the Tier 1 sites. All three used Alda's appearance as part of a reception and screening event to reward station and museum donors:

Tier 1: *"The event [with Alda] was filled to capacity. Many museum visitors had their interest in the series piqued by the panel discussion and called the museum to find out the series air date. In addition, our Human Spark display featured segments of the series that included Alan Alda. The display was left up through February, and many of our visitors took the Human Spark rack cards and bookmarks."*

Tier 1: *"Mr. Alda's visit helped our outreach efforts by drawing the attention of the local press and exciting our major donors. His travel arrangements had a bit of an awkward process to them that went much more smoothly once we were able to speak directly to his planning team and get the hotel set up for him rather than having everything relayed through multiple layers."*

Tier 1: *"This was a wonderful event for us. It engaged our donors in a great science topic, showed collaboration in the community, which is even more important in these economic times when so many nonprofits are struggling, and provided visibility above and beyond what we are usually able to provide. And it showcased the museum's ability to contribute meaningfully to a project like this - with widespread appeal and a national footprint. This event allowed us to introduce new people to the museum [because half] of the attendees were not museum donors rather supporters of the station."*

The remaining sites noted that they also would have liked to have had Alda visit their sites:

Tier 2: *"We would have liked to schedule an appearance by Alda or somebody else from show - unsuccessfully. Would have made a big difference. The local University [experts] were great for the people who came to the event - although not a big draw."*

DID OUTREACH ACTIVITIES INCREASE MEMBERSHIP AT STATIONS AND/OR MUSEUMS?

Half of the outreach activities distributed station and/or museum membership information, eliciting 40 new members that could be related to *THS* activity. However, most sites did not plan their outreach with increased membership as an explicit objective.

One of the overall goals of the LAB@Thirteen's outreach plan for *The Human Spark* was to create a new model to build adult museum and station audience membership. Membership information was made available through half of *THS* outreach activities, yielding 40 new members distributed across two of the nine sites.

One Tier 1 site recruited 35 of the 40 new members through a *THS* screening event (20), a non-*THS* event (5) and a *THS* website link (5). The site described their approach as follows:

Tier 1: *"We reached out to each of our membership databases and created a unique experience for both 'lists' of people. We were able to introduce station supporters to the museum and allow museum members the opportunity to explore what the station had to offer them. We had originally wanted to create a joint membership of some kind to help entice new members to each organization and that never came to pass."*

At a Tier 2 donor event, five high-profile donors renewed membership:

Tier 2: *"This [Tier 2 screening] event was a donor benefit to our \$1000+ donors to help further engage them in our activities as a way to cultivate them as part of our even larger strategy of increasing philanthropic donors vs. transactional donors. These types of events allow us to engage these donors in events that connect them to the core of PBS and public television. This particular event allowed us to engage donors from the museum and station and show how we work together in the community.... We actually received 5 renewal donors at the end of the year because of this event, and one of our donors said she wants to see more of these type of activities, so she can involve more of her friends to also become supporters of public television."*

Additionally, one site worked with community schools to provide a free package of museum and station membership to ten families representing diverse or underserved populations.

Most sites described their outreach as reinforcing current membership and/or raising awareness rather than explicitly promoting new membership. Some activities were intended only for current members (*"as a thank you for these donors"*). Some sites were hesitant to push membership at free events (*"usually receives negative feedback"*) or at events that were professional development (*"contracted by the school district"*) or at those events that drew out-of-area audiences like educator conferences.

Sites explained why increasing membership was not a realistic goal for *THS* outreach:

Tier 1: *"...more as community/viewer awareness events that would build audiences for the museum and the station. Hard to have a three part series be the driver for membership giving, but easy to have this series"*

used to help express the existence and the value of the programming available on PBS to those who may not have tuned in before.”

Tier 1: *“Small projects like this typically don’t increase the museum’s membership – what this did do is offer a special (and much appreciated) program or perk for our very important museum donors.”*

Tier 1: *“This is truly hard to accomplish unless the WNET program itself had been tied directly to a museum major exhibit. Anything other than that supports current membership more than it does generate new members.”*

Tier 2: *“The best [museum] membership driver will be related to an experience that people will want to come to several times over the course of several months to a year, as opposed to a one-time event.”*

Tier 2: *“The events could have been tied directly to a trial membership. However, that would preclude open community involvement. In some cases, having a free and open event is a friend builder, which can lead to fiscal support later on. It is difficult to experiment with membership if there is also a focus on attracting undeserved audiences. The outreach really needs to focus on one or the other to be most effective in what audience you want to reach.”*

Tier 2: *“The museum was not interested in sharing member lists so it made it very difficult to collaborate with them on increasing membership.”*

WAS THIRTEEN’S FINANCIAL SUPPORT ADEQUATE AND WAS LOCAL SUPPORT OBTAINED?

Funding provided by Thirteen was considered essential to the collaborations and adequate for the direct costs of planned outreach activities. Five of the nine sites succeeded in raising additional outside funds.

Both Tier 1 and Tier 2 sites used their financial support for promoting *THS* at non-*THS* events and for running *THS*-specific activities like screenings and websites. Tier 1 sites were more likely than Tier 2 to use funds to develop exhibits and produce long-format mass media. Tier 2 sites were more likely than Tier 1 to utilize science café settings. All but one PBS station shared Thirteen’s funding with their collaborating museum partners. Local fundraising was successful at five sites.

For non-*THS* promotional events (Table 3a), Thirteen funding was used mainly for materials and promotion. One museum raised outside money to cover exhibitor space expenses:

Tier 2: *“Museum raised \$350 from the Science Educator’s Association ...to pay for the Convention Center exhibitor space during the conference. This provided the promotional opportunity to connect with an interested audience and make them aware of our outreach events, the broadcast and resources of the series.”*

For *THS*-specific events (Tables 3b – 3e), Thirteen funding was used to cover various costs related to events including publicity, refreshments, programs, security, projection technology, speakers’ fees, speaker and student transportation, activity development and materials, and thea-

ter play production. For screening events, two museums secured underwriters including a national technology company and a science leadership association. Two sites reported catering contributions from local restaurants, for example:

Tier 2: *“The museum received \$2,000 through this partnership, however, museum received \$25,000 in-kind support from the station to promote their exhibits on air. The museum provided the space for the event. The station coordinated the event, printed and designed the invitations, web/blast design for promoting the event, printed the program and signage and staffed the event and set up. The station secured the food and wine restaurant donor of the event.”*

For museums exhibits, broadcast programs and local websites (Tables 3f – 3h), Thirteen funding helped support development and production expenses. One station raised outside funds for video production.

As noted above, financial support from Thirteen was mostly applied to direct costs, but all stations and museums provided unfunded in-kind contributions including staff time; for example:

Tier 1: *“Grant funds were used to pay for the expenses involved in the exhibit, such as interpretive signage for the exhibit cases, batteries to run the model of the human brain...and graphics. The museum provided many of its own resources as an in-kind contribution including use of its display cases, replicas and models and other artifacts.”*

Tier 1: *“The financial support covered the base costs of the collaboration but did not cover the administrative time for the project or the true costs of the major donor event.”*

All sites agreed that Thirteen’s financial support was essential to the collaborations; e.g.,

Tier 1: *“We would not have collaborated on this project without the financial support from WNET. We planned a project that fit the scale of WNET’s support.”*

Tier 1: *“Grant funds were used to pay for activities that otherwise would not have been possible.”*

Tier 2: *“Without the financial help from WNET, we would not have been able to move forward with the collaboration, so we were truly grateful.”*

WHAT NON-FINANCIAL SUPPORT AIDED INTEGRATION OF *THS* MATERIALS INTO THE MUSEUM SETTING AND WHAT ELSE WAS NEEDED?

Non-financial support for the integration of *THS* materials into the museum setting mainly included staff time for planning, coordination, design, production, hosting and promotion. Sites suggested that Thirteen provide promotional materials that could be co-branded as well as offer more timely provision of contracts, payment, and materials.

Non-Financial Support from Station to Museum

Museums and stations were asked what non-financial support the station partner provided to support integration of *THS* materials into the museum setting. Stations variously provided

- planning consultation and feedback;
- locally produced video to add to exhibits (and broadcast with museum credit);
- assistance securing other partners and/or expert speakers;
- coordination of participation of *THS*'s host and producers in reception and screening events;
- event staffing;
- online event registration;
- design of invitations, flyers, rack cards, mail stuffers promoting outreach activities; and
- online, eblast, print and on-air promotion of the museums and museum *THS* events.

Non-Financial Support from Museum to Station

The museums provided non-financial support to stations to support outreach efforts including

- planning consultation and feedback;
- being host site for events;
- designing and facilitating hands-on activities and discussions associated with events; and
- online, eblast, print and in-museum promotion of the station broadcasts.

Suggestions for Non-Financial Support from Thirteen to Museum and Station

Museums and stations also addressed the question of what non-financial support from Thirteen could have been provided to help the integration of *THS* materials into the museum setting. Several sites suggested providing promotional materials that could be co-branded with station and museum logos; e.g., *“It would have been great if the postcards, posters and bookmarks could have been more customized to the local market (the ability to add logos somewhere for example) so that [the museum] would have had more incentive to use them in their setting.”* One station provided a longer wish list:

Tier 2: *“Template websites. Articles that museums or stations might use in their publications and online sites are always useful. We also value discussion guides and teacher professional development materials and tips*

for way to tie in the materials for events. Electronic versions of PR materials and ability to co-brand station and museum in them. A template kiosk for museums with The Human Spark and easy options for localization are great.”

Sites also suggested that the *THS* outreach planning and implementation could have run more smoothly had Thirteen expedited contract signing, provide payments for expenses when incurred, distributed artwork earlier in the schedule, encouraged *THS* on-air interviewees to participate, and clarified that Graham Chedd preferred to show his own choice of video clips:

Tier 2: *“It would have been helpful to get the signed contracts completed early on to get our internal process moving (this took months before we received final contracts), as well as getting the art work to the posters/postcards so that we could have used this to customize our invitations.”*

Tier 1: *“We had several rounds where it seemed as if the WNET lawyers had not read a thing we had stated/requested in our original proposal.”*

Tier 2: *“[The museum partner] believes this event worked because of the local station – not because of WNET. The station was the driver of this project. They worked with WNET to get everything they needed – and WNET was sometimes slow in delivering.”*

Tier 2: *“Receiving payment early on so we could pay the museum earlier rather than towards the end of the grant.”*

Tier 1: *“We need to be more sensitive to payment timing that fits with when expenses are incurred. WNET is not making its final payment until after the broadcast premiere and the surveys are all complete, but our museum partner’s expenses were all incurred and completed in time for the event with Mr. Alda in October. Thus, we are making them wait 4-5 months longer for payment. Fortunately, this did not cross a fiscal year but if it had that would have been extremely difficult for them to manage.”*

Tier 2: *“Having WNET encourage the speakers to come out to speak at the museum. We never received responses from those we contacted, and that could have really enhanced our event to have one of the experts speak.”*

Tier 1: *“We wasted a great deal of time selecting clips for our major donor event only to have the producer Mr. Chedd override our decision and choose his own clips. We would have been very happy to have had him just choose the clips to begin with rather than taking 6 hours of one person’s time to watch all 3 episodes carefully to be able to select clips.”*

WAS THERE ADEQUATE TIME TO PLAN AND IMPLEMENT OUTREACH EFFECTIVELY AND WHAT WOULD BE THE IDEAL TIMETABLE?

All sites thought there was adequate time for the outreach tasks and suggested one year as an ideal planning period. However, most felt that the change in THS broadcast dates negatively affected planning and impact.

The time allowed for both Tier 1 and Tier 2 sites to plan and implement outreach effectively was considered adequate. Most sites suggested that a one year timetable is ideal “to utilize print media and meet the needs of publication deadlines,” but “knowing exact dates and makeup of the planned program at least 6 months ahead would be ideal.”

Tier 2: “We would love to have a year to plan all of the related activities. We could have had additional impact at conferences that we were attending and more teacher professional development. We might have also had more opportunities for on-air productions...The timeline we had was certainly workable, but a year is ideal to make best use of all promotional vehicles of both organizations.”

Sites pointed out that the unavoidable postponement in the national broadcast dates from November to January raised problems in planning and impact:

- ❖ The extended timetable dampened some enthusiasm; e.g., Tier 1: “Because the original air dates changed so many times, being pushed back, there was some excitement that was lost waiting for final confirmation on dates. When we originally met in New York, everyone was very excited and ready to move full force ahead but then were stopped short by changing air dates. Working on a project for 2 years is a long time to keep the enthusiasm up. I think a year would have been sufficient.”
- ❖ Thirteen’s September announcement of the delay to a January broadcast made it impossible to change the Fall dates of some outreach events, particularly with host Alan Alda, and thus these activities could not contribute as effectively to building audience for the actual broadcast many months later; e.g. Tier 1: “If the premiere of the WNET program has been in October timed to the event with Mr. Alda rather than the following January, we likely would have gotten even better local press coverage and unpaid tune-in promotion.”
- ❖ The delay also disrupted timetables for print promotions; e.g., Tier 2: “While there was nearly a year allotted for planning, the delays in air dates made it difficult to know exactly when to hold the events. In our case, we produce our *Quarterly News and Program Guide* to members roughly 4 months ahead of time, so we needed to have all details nailed down in August/September in order to include it in the guide that covers December/January.”
- ❖ The move to a January broadcast meant that most outreach occurred in November and December, eliciting lower participation numbers because of the holidays; e.g., Tier 2:

“November/December are so hard to get people to attend things due to competing holiday parties. The ideal timeframe would have been at least February for the air date to get better participation at our events.”

In contrast, one site found that the delay in broadcast was beneficial to their situation: Tier 2: *“The extension to a January airing helped us reach the schools better. Teachers were able to spend some time preparing for the event prior to the actual airing of the series. More time would have allowed us to plan to host more schools on different days.”*

One site suggested providing a communications template: Tier 1: *“One can easily appreciate the production challenges that caused the date change for the broadcast of THS. Working with the resulting timetable was doable but could be improved – perhaps an outline of a communications plan template for stations and museums to follow would help all parties maximize the time available in future collaborations.”*

HOW WELL DID COMMUNICATION MECHANISMS SET UP BY THIRTEEN SUPPORT THE COLLABORATION?

Sites thought that the communication mechanisms set up by Thirteen to support the collaboration were effective, although the museums tended to rely on their local stations for information.

Communication among LAB@Thirteen staff and sites was supported by face-to-face meetings, teleconference, phone calls, emails, and use of Basecamp, a web-based project collaboration tool. Most of the museums felt that they were kept in the loop by the stations rather than using the Thirteen communication mechanisms themselves; e.g.

Tier 2: *“I personally did not use Basecamp a lot, but our PBS partner did and was able to share quickly. We already had a good working relationship between the parties who executed the program, so many of our communication mechanisms were already in place.”*

Stations felt that LAB@Thirteen staff were very accessible and helpful in returning phone calls and emails.

Basecamp was considered most helpful by those who used it; for example:

Tier 1: *“I feel that Basecamp was a great resource for information. There were times when not everyone received the updates/emails as they should have, but it certainly served its purpose in being a one-stop-shop for information and contacts.”*

Tier 1: *“The Basecamp site worked well for day-to-day information. But when planning our event, much of my information came to me via the station. This worked because the station staff was very conscientious and kept me well informed, but I can see how it could be a problem without a strong partnership.”*

Tier 1: *“The Basecamp was well done and very helpful for communication and for viewing the documentary.”*

Tier 2: *“I enjoy seeing remarks, questions and comments from other stations.”*

Tier 1 sites were less sure about the usefulness of the face-to-face NYC meeting:

Tier 1: *“It was nice meeting everyone in NY during the kick-off meeting, but since we didn’t work much with each other afterwards, I don’t know if it was necessary.”*

Tier 1: *“The face-to-face meeting seemed more effort and money than perhaps was needed. It was a bit of hurry up and then wait.”*

WHAT IS THE VALUE OF *THS* COLLABORATIONS BETWEEN MUSEUMS AND STATIONS?

Museums point to the main value of the *THS* collaboration as attracting new audiences to their institutions. The main value for stations relates to increased visibility of the *THS* programs and the participating institutions themselves. The main drawbacks to the collaboration were the significant outlay of staff time and limited funding for collaborative outreach activity.

All but one of the nine museum/station sites had collaborated previously on projects. For the station and museum that had not had a previous relationship, *THS* *“was the start of a wonderful partnership that has led to additional projects and shared interests with stakeholders.”*

All but one site portrayed their collaboration as successful. Although a previous partnership at a Tier 2 site was described as “a true collaboration with equal sharing of tasks, promotion and results,” this *THS* collaboration was described as “fairly contentious” and resulted in the institutions separating their activities.

New Aspects In *THS* Collaboration

Sites described what aspects of the *THS* collaboration in particular had not been experienced in their previous collaborations:

- ❖ Seven sites described *THS* outreach formats that had not been tried before in their partnership, including a joint major donor event; science café; PBS promo in the museum theater; PBS programming on the museum floor in a display or kiosk; and screening with expert presenters.
- ❖ Four sites reported that for *THS* they targeted new audiences like adults and low-literacy high schoolers.
- ❖ Two sites felt that the new aspect of their *THS* collaboration was that the material connected better with the museums’ existing content.
- ❖ Two sites noted that they implemented a more coordinated series of events for *THS* than for previous collaborations.

- ❖ Two sites observed that staff and outside partners that had not been involved in previous collaborations were introduced into the *THS* collaboration.

Main Value of *THS* Collaboration

Sites described the following six main points of value of their *THS* collaborations:

- ❖ Bringing new audiences into the museum; e.g., Tier 1: *“THS collaboration gave the museum the opportunity to reach new audiences who do not typically visit our institution. The station promoted this collaboration to its viewers as well as to its members, driving new visitors to the museum to experience THS programming.”*
- ❖ Increasing the value of the museums’ existing offerings; e.g., Tier 1: *“With THS, the museum and station tied the series’ content to existing displays and demonstrations that amplified the value of the museum’s regular offerings.”*
- ❖ Increasing the visibility of the *THS* programs and participating institutions; e.g., Tier 2: *“Inform public about a great PBS series – increasing visibility of significant science education program. Increase visibility of station in the community. Increase visibility (and attendance) at museum.”*
- ❖ Providing opportunity to experiment with new outreach formats; e.g., Tier 2: *“Main value was jump starting our Science Cafés. We got to see how we could use video to enhance or spark conversation and will do so again.”*
- ❖ Strengthening the relationships between institutions ; e.g., Tier 1: *“It has provided the station and the museum with an opportunity to work together on a long-term project...and to further solidify our relationship and understanding of each other. Our Human Spark experience will serve to improve future collaborations.”*
- ❖ Spurring other partnerships and future collaborations; e.g., Tier 1: *“The Human Spark experience was unique in that it involved multiple partners....Creating meaningful collaborations with these project partners is extremely valuable to the station. These collaborations serve the immediate project, but also serve as a foundation for possible future endeavors.”*

Main Drawback of *THS* Collaboration

Sites described staff time and funding as two main drawbacks of a collaboration like *THS*:

- ❖ The amount of uncompensated staff time devoted to the collaboration was significant; e.g., Tier 2: *“Time. Competing priorities. This took 10 meetings of our team and the museum folks. Partnerships like this take time. The win-win-win makes it worth it – but finding the time is often a struggle in competition for energies.”*

Tier 2: *“Our resources and staff are stretched to the limit, and it takes dedicated time to work well with each other.”*

Tier 1: *“The amount of time needed to get to a contract, manage communications, adjust to changes and requests, file reports that were not well timed to our activities, and more, made this a very administratively heavy project with none of that time receiving compensation....We find that the small projects like this one don’t necessarily take considerably less time than a larger project. Especially if you are building a partnership.”*

❖ Available funding limited collaborative activity; e.g.,

Tier 1: *“The amount of funding limited the scale of exhibition development and programming that we could do.”*

Tier 2: *“Not enough funding to really do a big push.”*

Lessons To Share About Collaborating

The sites suggest that effective collaborations should identify the strengths and weaknesses of each organization vis-à-vis the project; understand the partner’s needs and mission; allow sufficient planning time; and communicate clearly and often.

When asked what lessons sites would share with other stations and museums about collaborating, the following themes were presented by more than one site:

❖ Identify the strengths and weaknesses of each organization, take advantage of unique differences; e.g.,

Tier 1: *“Identify in each organization its strength and weaknesses in regards to collaboration so each partner is handling the best pieces of the project.”*

Tier 2: *“Look for projects that provide good cross-over in the strengths, interests and goals of both institutions.”*

❖ Understand the partner’s needs and mission. Station respondents in particular pointed out the importance of understanding the museum’s goals, and in the one collaboration that was uncomfortable, the station did not appear to make this effort.

Tier 1: *“It is most important for stations to see how the museum finds value in the programming and outreach.”*

Tier 2: *A partnership means give and take. Too often parties see it only as promotion. Attend to the partners’ objectives and needs and you will get reciprocity.”*

❖ Allow sufficient planning time; e.g.

Tier 2: *“Have enough time to plan.”*

Tier 2: *“Plan as early as possible to make sure both organizations are also speaking internally with their membership departments to ensure good participation on their end.”*

Tier 1: *“We need to be sensitive to each other’s planning worlds – museums plan out 2-3 years for exhibits of major impact.”*

- ❖ Communicate clearly and often; e.g.,
Tier 1: *“Make communication a high priority and make sure everyone understands the plan before the project begins.”*

Tier 2: *“Be sure the partners are totally in agreement, get things in writing.”*

WHAT IS THE ‘RIPPLE EFFECT’ OF THIS COLLABORATION BETWEEN MUSEUMS AND STATIONS?

“Ripple effects” of the *THS* collaborations were revealed in three areas: public impact; expanded organizational capabilities; and future collaboration.

Public Impact

The focus of this study was not specifically on the collaborations’ impact on the public; however, several reported anecdotes demonstrate that the influence of the outreach activities spread beyond primary audiences who directly experienced the outreach activities.

- ❖ A Tier 1 station that produced local human spark video reported that the local university *“Department of Anthropology is looking into ways to incorporate the program into classroom experiences.”*
- ❖ A Tier 2 station heard from *“Anthropology faculty that they would be using The Human Spark in class and had purchased a copy for the college library. One of their staff from a local Family Resource Center took resources back to her workplace. Other staff at the agency were using the on-demand version [of THS] for professional development credit for the staff in early childhood to better understand neuroscience.”*
- ❖ A Tier 2 museum has requested permission to include *THS* video in a new permanent exhibit.
- ❖ A teacher who attended a Tier 1 screening event *“shared the web resources with her students the following day and provided them an incentive to watch the broadcast that evening. Her inspiration from the evening led about two-thirds of her class to tune into the series’ premiere. They sent emails to share how much they enjoyed the program. The teacher had her class research different human body systems. The group that selected the digestive system in class was extremely disappointed they didn’t have ‘as cool’ a resource as THS to use and watch. Normally 5th graders find the digestive system to be ‘the cool one’ to investigate, but [access to] THS made the nervous system cool instead.”* Emails from 5th graders follow:
The show the Human Spark was very interesting because they talked about how we became human. They showed how cavemen used to live and how they used their weapons. I learned that we are similar to the chimpanzees except for 1%. I am going to watch the next one...Ivoire.

I thought that the show The Human Spark was wonderful. I thought it was so interesting and how we are 1% chimpanzee. The facts in the show were cool...Natalie

I thought your show The Human Spark was very interesting. It was very cool when the show showed the skulls and talked about how we developed into our human form. The part that was really interesting was when they were in the cave finding stuff about the Neandratols [sic]...Lindsey

I thought the show was awesome. It also creeped me out. It was interesting because it had a lot of skulls and it told me what evolution was like...Mason

I thought the Human Spark was so cool and interesting. I thought the best part was the spear part. I can't wait for the next one...Isidro

Expanded Organizational Capabilities

The most successful collaborations provided opportunities for organizations to learn from each other and to expand their own capabilities and offerings:

- ❖ A Tier 2 museum site learned from their station partner “quite a bit about online marketing, the use of social networking (Twitter, Facebook), hosting online chats, etc. [Social media] is something that our institution has wanted to start doing, but had not had the resources, know-how, or opportunity. This [project] helped us grow in 2 of those 3 areas, and we will officially be going live on both Facebook and Twitter at the end of February, 2010.
- ❖ A Tier 2 museum that was initially not interested in integrating video into their “interactive place” became a convert to the advantages of video: “I think there is really good opportunity here. In fact, we’re going to test using some video on a daily public museum program, themed around news flashes on hot new science breakthroughs. I can see how it will help the audience understand and make the science more current.”
- ❖ Two Tier 2 sites experimented with Science Café configurations through this project and are committed to continuing the concept with other science content. One reported that the restaurant and library that hosted THS cafés “asked if we could facilitate these as ongoing monthly science meet-ups. The use of video is a tremendous benefit and really tied it all together....The library group has now started a book club that will meet monthly to discuss “Human Spark” related book topics.” A second site reported that “this project opened up a new opportunity that we had wanted to explore but had not been able to at the level we felt was possible – the Science Café.”
- ❖ A Tier 2 PBS station noted that “introducing [the museum] to The Human Spark program created extraordinary interest in including the workshop we hosted into their on-site educational program permanently.”

Future Collaboration

One of the major goals of the outreach initiative was to encourage collaboration that leads to benefits that continue for years. For sites in which the partnership between station and museum was new or intermittent, the funded collaboration provided heightened community visibility for the partners and the impetus for future joint activities and synergy; for example:

Tier 1: *“This was the first time our institutions had partnered, and we were excited to find ways to collaborate. We have collaborated for several other projects this fall.”*

Tier 2: *“Funding really helps to establish these type of partnerships for non profits especially in this difficult economy.”*

Tier 2: *“It was a great partnership and enabled both institutions to share their resources and strengths with each other and the public.”*

For some sites, the partnership between station and museum was longstanding and the *THS* project reinforced that relationship; e.g.,

Tier 1: *“Station and museum have a long-standing history of partnerships. The Human Spark was another opportunity for the two organizations to work together and strengthen their existing relationship. We appreciate the opportunity to work on this project together as it helped both organizations to fulfill mutual goals and objectives.”*

Tier 1: *“For both institutions, this deepened our working relationship in content education and expanded our relationship in terms of joint promotion and major donor work...We will most definitely collaborate again in this kind of activity. We already have some projects in mind.”*

Tier 2: *“This was a successful collaboration that brought visibility to all partners....These partners have worked and continue to work together on other activities including the creation of instructional materials.”*

Tier 2: *“The [screening] event provided publicity of our partnership working together on an outreach around important scientific topics...As demonstration, since the event, the museum has received multiple inquiries from the public about possible upcoming museum-station partnerships and requests for future events....We traditionally invite guests from the museum’s café series onto the station’s radio talk show on a monthly basis...[The website] is a great way to get information about both organizations and enrich the experience of the audiences that both organizations reach. By using social media and cross posting with partner organizations, events have opportunities to go viral, even if in a small way. For example, some participants told us that they forwarded an email they got to a friend or shared a Facebook posting.”*

All of the sites agreed that they would collaborate with their *THS* partner in the future. Five sites have plans for collaborative proposals utilizing the PBS series *Cyberchase*, *Fetch!*, *Music Instinct*, *Nature*, *NOVA*, *QUEST*, and *SciGirls*. A few other types of future collaborations were described:

Tier 2: *“We are currently working on other joint grant opportunities to set up a permanent kiosk at the science center to better connect our [station’s] science educational broadcasts to the museum. ... And we are planning a media trade together for next year since Elmo’s All About the Body is returning to the science center.”*

Tier 1: *“We are looking at working on an early childhood project together. Spending so much time together on the Human Spark gave more opportunity for that idea to germinate.”*

Tier 2: *“We have talked about trying to co-present a science café annually to tie in a PBS program with the museum’s lecture series. ...We have also talked briefly about trying to apply for funding together to provide virtual “science cafés”, chats or webinars to increase options for discussion. We could also look at teacher professional development and educational production as areas of potential future collaboration.”*

Although the plans described above are not necessarily a direct result of the *THS* collaboration, the *THS* experience demonstrated the advantages of a partnership, and with more knowledge of each other's capabilities through this collaboration, interest increased in looking for potential connections between the organizations.

Finally, sites identified two obstacles to future collaborations – lack of funding and lack of fit; for example,

Tier 1: *“Resources are always welcomed, funding is always seen as a fantastic incentive.”*

Tier 2: *“Joint funding opportunities definitely help to ensure collaboration, but also materials that help create event opportunities that relate to the museum also help.”*

Tier 1: *“Continued collaborations depend on shared mission opportunities, time and money. Shrinking budgets are the major obstacle to collaborations.”*

Tier 1: *“The right “fit” remains the big condition for collaboration – content, age level.*

Tier 1: *“Collaboration may sometimes depend on PBS program content. For instance, THS provided perfect content for our museum partner.”*

Tier 2: *“I think it’s just a factor of keeping our eyes and minds open to the best cross-over opportunities. Too often we realize after an exhibit has left or a program has ended that there was a great partnership opportunity that got missed. Sometimes finances can be looked at as a limiter, but there are always opportunities for partnering that can be built around existing budgets. For instance, THS has opened up conversations with the station about regularly including PBS show talent in the museum’s annual lecture series. For the museum, that is already a project that is built into our budget and including on-air personalities enhances advertising and buzz for the program. In the case of the station, having an on-air personality brought to the community by the museum adds advertising buzz for the televised program.”*

DISCUSSION

Nine museums and PBS stations collaborated to implement numerous and diverse outreach activities and events to promote and extend the impact of the three-part national television series, *The Human Spark*. The outreach portfolio that possibly exposed over half a million people to the existence and content of *The Human Spark* project included video screening and discussion events, museum exhibits, locally produced long-format media productions, online social media, formal educational workshops, and promotion within non-*THS* events.

The partners built upon the fact that they share an educational mission and share local audiences or visitors who are interested in science and lifelong learning, and they recognized that each institution brings unique strengths to a collaborative venture. Institutional representatives identified the value of the *THS* collaboration as introducing new audiences to the museums; augmenting the value of the museums' existing offerings; increasing the visibility of the television programs and the participating institutions themselves; providing opportunity to experiment with new outreach formats; strengthening relationships between institutions; and spurring other partnerships and future collaborations.

The overarching goal of this study was to identify best practices for supporting collaborations of local institutions to implement informal science outreach activities involving video. The experiences of *The Human Spark* outreach organizations revealed the following best practices:

- ▶▶ **Provide adequate funding:** Respondents agreed that outside funding was an essential element for any collaboration between the organizations. Thirteen's funding of \$35,000 for Tier 1 sites and \$10,000 for Tier 2 sites was considered adequate for the direct costs of the planned outreach activities. The funding did not sufficiently cover significant in-kind costs of staff time for planning, coordination, design, production, hosting and promotion. The larger budget for Tier 1 sites enabled them to produce local long-format mass media as well as develop museum exhibits, but even Tier 2 sites received sufficient support to experiment with new-to-them outreach formats like science cafés and on-line social media. In addition, organizations should share funding to promote shared enthusiasm and shared responsibilities.
- ▶▶ **Recognize the need for significant leveraging of internal resources:** To promote both broadcast viewership and participation in outreach events, organizations drew heavily on their in-house resources of internet communications, video production capabilities, airtime availability, event planning resources, and expertise of programming and exhibit staff.
- ▶▶ **Engage local partners and underwriters to expand reach into the community:** Five of the nine sites were successful in raising supplementary local funds, and all sites involved local partners including universities, schools, zoos, research centers, libraries, restaurants, and professional associations.

- ▶ **Provide at least one year to plan and execute:** Respondents agreed that there was adequate time for their part in the *THS* outreach project. They suggested that one year is an ideal planning period, long enough for sites to meet timelines of print promotion and short enough for participants to maintain their enthusiasm for the project. Be aware that media and museums operate at different speeds and flexibility, the former being described as a fighter jet and the latter as an aircraft carrier.

- ▶ **Provide accessible and timely communication mechanisms:** Thirteen supported the collaborations through face-to-face meetings, teleconference, phone calls, emails and a web-based project collaboration tool. Sites reported timely responses from LAB@Thirteen as well as frequent meetings, phone calls, and emails between museums and stations themselves. Written planning agreements between collaborators facilitate clear communication and smooth implementation.

- ▶ **Take time to understand partner's strengths and weaknesses, mission and needs:** Communication between partners is essential to the success of any collaboration. Sites recommended that early conversations focus on what unique capabilities each partner brings to the table and what each partner's needs are.

- ▶ **Provide video and materials that complement museum collections and event schedules:** Part of the communication noted above included discussion and negotiations about what *THS* video and materials would best support local initiatives. Thirteen provided national web material, bookmarks, posters and postcards that promoted the broadcast. Sites recommended that print material be designed to permit local co-branding as well as national branding. Available *THS* video included full-length episodes, video segments, and a video trailer. To use video resources effectively in the museum setting, sites suggested connecting video content to museum mission and exhibits; developing complementary hands-on manipulatives and kiosks; providing short segments; supplementing with local speakers and locally produced video; and using live presenters with screenings. To support continued use of video in museums, future collaborative research should contribute to the meager set of studies that have examined the actual impact of museum-based video experiences on public engagement and learning.

- ▶ **Provide site visit of on-air celebrity or series producer:** Everyone felt that site visits by those appearing in the series or producing the series increased publicity and event attendance, although the delay in the *THS* broadcast dates reduced the contribution of these visits to promote broadcast viewing. The closer events are to the series broadcast, the greater the audience build.

- ▶ **Minimize administrative staff time:** Respondents pointed out that successful collaborations require more staff time than the institution might anticipate in terms of planning and implementing outreach events and activities. However, some also suggested that administrative staff time could be decreased by Thirteen's expediting contract negotiations; providing earlier payments; clarifying travel and presentation needs of series' representatives attending screening events; and decreasing the number of written reports and surveys.

- ▶ **Leverage existing events to promote and educate:** Institutions effectively piggy-backed on local events that were already happening in the outreach time-frame like educator conferences, community book fairs, radio talk shows, television information magazine programs, monthly science cafés, and free or reduced museum admission days.

- ▶ **Encourage experimentation with new formats to expand institutional capability:** One advantage of collaborations that the organizations valued was the opportunity to learn from each other and to “*think outside the box.*” Several collaborations moved beyond their comfort zone to experiment with outreach formats that were new to one or both of them, resulting in increased institutional capabilities.

- ▶ **Encourage mechanisms to localize the content.** Most sites supported efforts to bring local flavor to the national project by bringing in local speakers; providing local social media outlets; or producing video or radio interviews of local experts and everyday people about the human spark content. Complementary local media production has the potential to increase community engagement with the content and the potential to extend the project’s longevity with integration into local museum kiosks and websites.

- ▶ **Support development of a museum kiosk template:** Unlike singleton outreach events, integration of local and national video into exhibit kiosks continually exposes the content to more people as long as the exhibit remains on the museum floor. Several sites recommended the addition of a museum kiosk to the outreach portfolio, and one museum’s kiosk template offered the opportunity to be replicated at other sites.

- ▶ **Define realistic goals.** An integral component of LAB@Thirteen’s *THS* outreach project was an intention to create a new model to build membership at the stations and museums; however, acquiring new members was a low priority for the collaborative partners. Most sites did not plan their outreach with increased membership as an explicit objective, and few sites could confirm new members as a result of *THS* activities. Sites felt that reinforcing current membership and raising visibility of the museums and PBS programming was a more realistic goal of *THS* outreach than promoting new membership.

- ▶ **Specify and clarify expectations:** LAB@Thirteen intended for *THS* outreach to engage NSF’s audiences of underserved minorities and underrepresented socioeconomic groups. Although several museums were geographically situated in ethnically diverse communities and implemented some outreach accessible to minorities or lower-income visitors, most sites interpreted ‘underserved’ to refer to other groups who do not frequent their museums such as college students, single young adults and older couples without children.

Finally, a major goal of the LAB@Thirteen’s collaborative outreach initiative was to encourage collaboration that leads to benefits that continue for years. The *THS* experience demonstrated the advantages of the partnership, and all sites agreed that they would collaborate with their *THS* partner in the future. With more knowledge of each other’s capabilities through this collaboration and deepened personal relationships, interest increased in looking for potential connections between the organizations.