

QUEST Regional Hubs Collaborative
Final Evaluation Report

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QUEST Regional Hubs Collaborative
Final Evaluation Report

Submitted to:
Sue Ellen McCann
and the
QUEST Hubs Collaborative

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Executive Summary

Projects like this, where we can ask the questions across the organization and with one another across the stations, I think are really useful because I think we have to be really, really, really sharp. ~Team Member, QUEST Philadelphia

Led by KQED in Northern California, a network of seven public media organizations around the country joined to form the *QUEST* Regional Hubs Collaborative project. Funded with grants from the National Science Foundation (NSF) and the Corporation for Public Broadcasting (CPB), this project aimed to achieve two deceptively straightforward goals: the adaptation of a successful cross-platform media production model and the creation of a content-sharing collaborative. Yet, when one dissects the elements required to achieve these goals, a complex set of challenges and opportunities emerges. These challenges and opportunities speak to the heart of how and why public media organizations create and disseminate STEM content and interact with their communities in the 21st Century.

The QUEST Model – Year 1

Throughout the first year of this project, each regional hub was introduced to the opportunities presented by KQED *QUEST*'s cross-platform production model and, at the same time, the challenges inherent to organizational change. Within traditional media organizations, television and radio producers work independent of one another and have quite different timelines, budgets and work processes. In addition, the work of a station's education and interactive staff typically begins *after* media pieces have been finished and made ready for broadcast. Thus, the move toward an integrated, cross-platform production team requires people at these organizations to shift cultural norms, adopt alternative work patterns, and develop new skills. As the regional hubs took on this challenge, the experiences of KQED's *QUEST* team offered a successful example to follow and lessons learned from their own journey to breakdown barriers and develop shared work processes. Still, each group had to find the best ways to adapt the model within their organization's existing structures, resources, barriers and missions.

Considering these factors, each hub team sketched out a set of outcomes they hoped to achieve on their path toward implementing the *QUEST* model, such as: to build an initial team to produce pilot media content and educational resources, to secure buy-in from senior management, to explore pilot partnerships with community partners, and to acquire funding to produce pilot content. The teams also joined together to obtain collective funding from CPB for the pilot of the second part of the project, the content collaborative.

The Collaborative – Year 2

During the second year of the project, the network of hub teams transferred their focus to the pilot of the content collaborative. Their vision of a new way of working together in public media required the hub teams to address an additional set of challenges that ranged from the nuts and bolts of production to high-level, conceptual thought and inquiry. In dealing with these challenges, team members also experienced opportunities for learning, growth and change.

COLLABORATIVE VISION. Historically, public media stations have produced content independently from one another. To varying degrees, individual stations produce content for their local markets. Some stations also develop content for NPR and national PBS television series like *NOVA*, but the production model used for a series like *NOVA* cannot be considered collaborative. *NOVA*'s producing stations work on assignment, developing pieces within the program's timeline and established protocols for content, style and format.

The seven hub stations sought to create a quite different mode of co-production and content. The initial vision for the collaborative called for each hub to create its own cross-platform *QUEST* team. Each team would then produce multi-media science and nature content to be distributed to audiences both by their individual stations and by the other participating hubs. To facilitate this sharing of content, which would be available online and might be packaged into a broadcast series, the hub teams would develop and use common editorial and technical standards. In this manner, each hub would have access to a larger and more diverse set of multi-media content and educational materials than it could produce on its own. During this phase of the project, it was not feasible for the collaborative to realize that initial vision, however, and the pilot plan was revised to more closely resemble a national [*NOVA*] production model with KQED as the lead editorial and distributing station.

A number of factors led to this scaled-back version of the collaborative for the pilot. First, while all of the stations made progress toward implementing the *QUEST* model at their stations in Year 1, none advanced as far as they had anticipated. KQED's *QUEST* Team Leader reflected that, while their team was able to share insights and lessons learned as they created their cross-platform production model, the other stations still had to address complex challenges and find their own paths to organizational change. In short, the challenges these teams were undertaking were even more difficult and complex than any of them had anticipated. Consequently, at the start of Year 2 KQED was the only hub with an experienced team, cross-platform technical and editorial work processes, and established distribution channels.

Closely tied to this first issue, the stations struggled to find the resources (human and financial) to devote to the project. Collaborative activities halted for a number of months while the group sought additional funding for content production, significantly reducing the

amount of planning time and compressing the production schedule. Ultimately, CPB provided funding for the content produced for the collaborative, and they asked that KQED assume the role of lead producer for the pilot phase. Finally, the teams had to deal with unanticipated branding and rights issues that restricted the hubs' use of the *QUEST* name and music used in science pieces produced outside the pilot process. As a result, the hubs were unable to label their non-Collaborative, local science content and outreach activities *QUEST*.

COLLABORATIVE CHALLENGES. The constraints that led to a scaled-back vision for the collaborative pilot raised concerns for the staff and leadership teams at each of the hubs. Nearly all *QUEST* hub team members and leaders expressed frustration at the compressed timeline and shift in scope of the collaborative pilot. Many team members felt that, far from its original vision of collaborative content sharing and production, the project had become “work for hire,” in which they were merely producing content for KQED’s use. Further, senior management at most hubs did not see the collaborative as a long-term project, and they did not invest the human and financial resources needed to truly implement a cross-platform production team. While the support varied across stations, team members at all hubs felt the pilot content production was added on to their already full workloads.

On the technical side, hub staff had to work within KQED’s editorial and technical work guidelines, and the learning curve was steep. They were dealing with foreign work systems and processes, at times incompatible technology, and different and often more challenging and intensive editorial guidelines and requirements. Moreover, many hub team members were creating forms of digital media assets, such as audio slideshows, for the first time. At the same time, KQED’s *QUEST* team members were working to expand their established work processes to encompass the technical and human capacities of six other stations.

COLLABORATIVE OUTPUTS. Despite these complex challenges, the participants in the collaborative pilot persevered, ultimately producing and delivering a wide variety of high quality educational science and nature media assets, including:

- two 4-part radio series delivered to NPR and PRX;
- TV segments packaged into 10 half-hour programs delivered to all of the hub partners;
- multiple educator guides uploaded to PBS LearningMedia;
- 10 Web-only videos, 10 Web extra videos, weekly blog entries from each hub, and text to accompany each asset on the website; and
- a redesigned, interactive website.

In addition to the creation and distribution of these media, the hub teams developed an initial set of shared workflows and procedures on which to build future efforts. All participants agreed that these processes would need to be streamlined and revised

moving forward, and the technical problem-solving and lessons learned in this pilot phase will inform a next iteration.

COLLABORATIVE OPPORTUNITIES. Even as the hub teams wrestled with complex issues and questions, they felt that their participation in the Hubs Collaborative yielded valuable opportunities for networking and professional development – both within their own organizations and among the hubs – that will extend beyond the scope of this pilot. In fact, opportunities for learning and relationship building were the hallmark of this pilot content collaborative and are two essential building blocks of any networked project.

At all stations, *QUEST* team members felt that they had grown professionally through their participation in the Hubs Collaborative. Production, Interactive and Education staff experienced rare opportunities to discuss their craft with professionals outside their own organizations, sharing with one another creative approaches to storytelling, media and educational materials development and outreach activities. Both within their own organizations and through interactions with KQED staff, team members learned about other platforms and practiced implementing a cross-platform production model. Notably, Interactive and Education staff, who frequently find themselves working at the margins of their colleagues in Production, felt these opportunities most keenly.

Through informal interactions and regular, structured meetings (monthly webinars, weekly team leader phone calls, two symposia, and a team leader convening), the teams devoted a great deal of time to relationship building and communication. Yet, as may be expected in a project incorporating so many organizations and individuals, lines of communication did not always run smoothly. When miscommunication and misunderstandings occurred, the KQED leadership worked to increase opportunities for discussion and for individuals to get to know one another. This investment proved invaluable when issues arose, particularly within the collaborative leadership team, made up of one senior person from each hub. Over the course of Year 2, open communication efforts strengthened the relationships among the collaborative leadership team members, allowing them to relay their staff's frustrations and concerns, express diverse opinions and priorities, and collectively seek workable solutions for the pilot and the planning of the future of the project.

Future of the Collaborative

With this project, KQED's *QUEST* team invited the regional hubs to embark with them on a journey into the unknown. They began with a vision of a new way forward for public media, a vision of networked science content production and sharing that would be more than just local but not quite national. From the beginning, all of the participants knew this journey might prove difficult and would require them to address complex questions. They also believed it was essential to find a more efficient, sustainable way of creating and sharing multi-media content within the public media system. As the pilot phase of the collaborative ends, this journey has not concluded. The pilot served as an interim step

along the path toward realizing the project's collaborative vision. Each step proved more complicated and time-consuming than even the hub team leaders had anticipated, but this factor was not out of line with what they were trying to accomplish. Research on the establishment and evolution of networked projects reveals that such work does progress in stages and organizations may achieve different degrees of network integration (Gajda, 2004).

In the first year of this project – sharing and adaptation of the *QUEST* model – the stations needed to achieve the most basic level of network integration, *cooperation*, in which participants share information and offer mutual support (Gajda, 2004). Hub team members set goals and made plans for how to adopt the *QUEST* model within their own organizations. Aside from sharing ideas with one another and learning from KQED's team, participants needed to consider only their own organization's goals and interests. With a shift in focus to the content collaborative, Year 2 of the project required the hub teams to achieve a deeper level of network integration. The full vision for the project called for full *collaboration*, defined as a network with integrated strategies and a collective purpose. The hubs did not reach that level in the pilot. Rather, they reached an interim level between cooperation and collaboration called *coordination*, defined as the sharing of common tasks and compatible goals (Gajda, 2004). Thus, the Hubs Collaborative network progressed along a common trajectory toward deeper integration, setting the teams up for the next phase - collaboration.

SHARED VISION. Through a great deal of discussion and debate, the collaborative leadership team members have determined that they would like to continue to build on the work of this pilot, to develop a truly collaborative network. As part of this deliberation, each hub's representative had to determine whether and in what ways the vision for the collaborative served their organizational mission. Collectively, the leadership team searched for common ground between serving their individual missions and maintaining the vision of the collaborative. This negotiation between "self-purpose" and "network purpose" must take place in any network, and the vision of the network must evolve to balance those needs for all members (Anklam, 2007). Indeed, the vision for the collaborative has evolved to balance these needs, and the hubs have decided to move forward with the project, pending funding, with one exception. The team from WHY? determined that continuing in the project would not allow them to meet their station's goals and organizational mission, and they have chosen not to participate in the future.

During this pilot phase of the collaborative, the hub teams made progress toward their local and collaborative goals, established relationships and work processes, catalogued lessons learned, and developed a vision to sustain and grow their project. Should their network continue to advance toward their shared vision, they would need to address some key issues and keep in mind essential elements of the project.

EFFICIENCIES. Through the content collaborative, the stations hope to realize efficiencies in production. First, however, the hub teams will need to simplify their shared work

processes. During the pilot phase, the processes required for the complex and time-intensive work reduced the efficiency of having access to a pool of shared content. Aware of this issue, the collaborative leadership team plans to adjust these work processes in the future, in part by returning control of production to each hub but with common editorial and technical guidelines, rather than having one station act as the lead. This process both will reduce the level of learning and complexity for producers and will allow each hub to develop content that serves its individual goals.

AUDIENCES. Due to the compressed production timeline during the final months of the project grant, researchers were not able to gather data and feedback from audience members in the seven regions. The content will air in most regions while this report is being finalized and submitted. In the future, the hub teams seek to discover how and why audiences use their online content, how they react to content from other regions, how educators use their materials in the classroom, and the role and value of working with community partners.

COMMUNICATION. While the collaborative leadership team emerges from this pilot with firmly established relationships and communication patterns, work still needs to be done to foster such relationships within and among the staff members at the hubs. *QUEST* team members need to feel that they are, indeed, part of a team and valuable contributors to the project.

RESOURCES. Without the financial support to build teams and create content, the momentum gained in this pilot may fade in the face of more immediate work demands. *QUEST* team members at multiple hubs expressed that, while they would like to see the project continue, they could not envision themselves working on it unless their workloads were shifted accordingly. All of the hubs need to reassign staff and fund positions to develop true cross-platform teams.

LEADERSHIP. Leadership is fundamental to all elements of the next stage of the collaborative network. Both *QUEST* team leaders and senior management at the hubs must create the conditions under which their staff can succeed and the collaborative vision can be achieved. In the words of one team member, leaders must create a “mandate” that this project meets the needs of their organization and is important to their future. They need to establish structured opportunities for collaborative work and communication across platforms. Ultimately, they need to continue to build on the valuable work of this pilot collaborative network, allowing it to continue to evolve toward a new vision for 21st Century public media organizations.

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Project Background

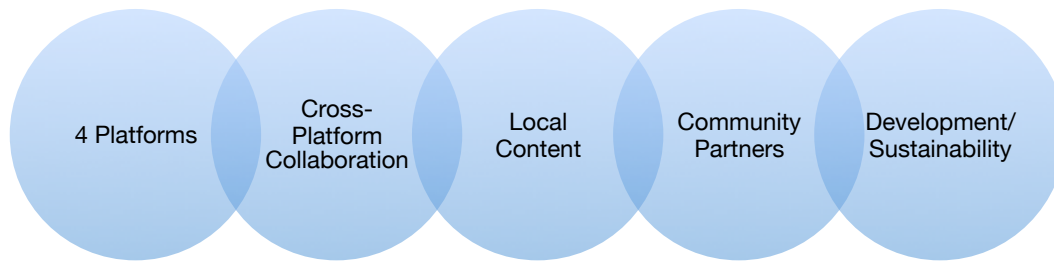
Led by KQED in Northern California, a network of seven public media organizations around the country joined to form the *QUEST* Regional Hubs Collaborative project. Funded with grants from the National Science Foundation (NSF) and the Corporation for Public Broadcasting (CPB), this project aimed to achieve two deceptively straightforward goals: the adaptation of a successful cross-platform media production model and the creation of a content-sharing collaborative. Yet, when one dissects the elements required to achieve these goals, a complex set of challenges and opportunities emerges. These challenges and opportunities speak to the heart of how and why public media organizations create and disseminate STEM content and interact with their communities in the 21st Century.

The *QUEST* Model

With a prior grant from NSF (2006-2009), KQED created a new series and adopted a new way of producing media content. The multi-media *QUEST* series covered local science, nature and environmental issues through television and radio programming, original web-content, and outreach to educators and community partners. Aligned with advances in digital media technology, this cross-platform project broke down boundaries between traditionally distinct departments within KQED. Television, radio, education, interactive, and development staff came together to create an integrated *QUEST* production team.

The *QUEST* team extended this pattern of cooperation and collaboration to a wide variety of Bay Area organizations. These *QUEST* partners, ranging from small community based science organizations to large research institutions and science centers, meet quarterly to share upcoming activities and opportunities for cross-promotion, dissemination strategies and joint events. Through the partnership, *QUEST* staff share their digital media expertise with the partners through training workshops, and the partners provide their scientific expertise and story ideas to the *QUEST* productions. This construction of a collaborative partnership with a media outlet at its center helps bring together organizations that might not otherwise interact, resulting in stronger organizations that are able to provide richer programming and resources to the community. These activities evolved into the five interconnected components of the *QUEST* model shown in Figure 1, below.

Figure 1: The *QUEST* Model



The Regional Hubs Collaborative

The current NSF grant allowed KQED's team to extend the *QUEST* model to other public media organizations around the country and to develop a content collaborative with those organizations. Within the collaborative network, the hubs would share the content produced by each station, thereby expanding the science materials they could offer to their regional audiences. Within these broader goals, the project team sought to fulfill a number of objectives, listed below.

Goal 1: Extending the model – Each hub would independently:

- adapt *QUEST* organizational and cross-platform production model;
- develop funding and production plans for Y2;
- develop regional partnerships and collaborations to develop and disseminate STEM content to a broad audience;
- develop and disseminate pilot content materials for regional audiences; and
- develop informal STEM content materials and outreach activities.

Goal 2: Developing the collaborative – Led by KQED, the hub teams would collectively:

- create and distribute multi-media *QUEST* content and educational assets, focusing on STEM topics that are relevant for local, regional, and national audiences;
- implement a collaborative content production and distribution model;
- develop and/or implement technology frameworks necessary for sharing educational media assets as part of the collaborative production and distribution model;
- develop best practices for scaling the *QUEST* model and replicating the collaborative process, including recommendations for media standards, file transcoding, and other workflows for sharing digital assets during production and distribution; and
- collaborate with local, regional, and national partner organizations to highlight the growing body of educational media and education resources and support their effective implementation.

Through this process, the hub teams hoped to lay groundwork for a new, sustainable way of creating and sharing STEM content within the public media system. Their approach would traverse the space between a national series and local production and would leverage digital media technologies to help keep public media relevant in the 21st Century.

Evaluation Overview

Rockman et al (REA), an educational research and evaluation firm in San Francisco, served as the external evaluator for this project. The overall goal of this evaluation was to document the development of both the regional variants of KQED's *QUEST* model and the processes, relationships and outputs of the content collaborative. The evaluation approach was predominately qualitative, bringing in quantitative elements when appropriate. Using a combination of observations, site visits, interviews and surveys, researchers captured the opportunities presented and challenges faced within each hub and across the two stages of the project.

Evaluation Approach

With this project, the regional hubs undertook a process of change and adaptation. Consequently, researchers implemented a process evaluation approach to document and analyze the hubs' journeys. Process evaluations are useful for monitoring program implementation and identifying changes necessary for improving program operation. The process evaluation lens has led researchers to systematically address the opportunities and challenges faced by each hub with respect to the following questions:

- How is the program being implemented?
- What factors are influencing the program's ongoing development?
- What kinds of challenges are being experienced?
- What are the overall strengths and weaknesses of the program?
- What kinds of changes can be made to enhance implementation?

Over the course of the project, researchers attended monthly webinars, two symposia and a planning meeting for hub team leaders; visited each hub site to conduct a series of in-person interviews with hub teams, senior management, and representatives from potential community partner organizations; conducted multiple phone interviews with the teams at each hub; and administered several feedback surveys to the hub teams. At the end of the project, members of all of the hub teams completed a *QUEST* Hubs Collaborative Reflection Survey.

Researchers employed two theoretical approaches to guide the data analysis – scaling and collaboration theory. Perspectives on scaling of innovations were applied to the spread of the *QUEST* model. Dede & Rockman (2007) discuss multiple types of scaling strategies and the questions or issues associated with each. This project touched on several of the strategies. The most basic scaling question was *adaptability*, that is:

- What features of the existing program can be easily transferred or adapted for others to use easily in similar or different contexts?

More generally, this project followed a strategy of *spread* or diffusion of an innovation, leading to the following evaluation questions:

- What are the necessary components and essential features of the model?
- What are the frameworks needed for the collaborative?

Collaboration theory and perspectives on the work of alliances shed light on the network elements of the project. Specifically, collaboration theory points to various levels of integration that a network of organizations can achieve, including: cooperation, coordination and collaboration (Gajda, 2004). Any of these levels may be the end goal of a strategic alliance, but each one has different features and objectives. On the way to achieving one of these levels, organizations must engage in “net work,” which includes balancing factors such as self-purpose and network purpose (translated here into individual station missions and shared collaborative vision) and transparency vs. opacity (Anklam, 2007).

Through prism of these perspectives, researchers coded observation notes and interview transcripts for themes both within and across hubs and then added survey data to check and round out the findings. These themes organized into a set of opportunities presented and challenges faced within each hub and across the two stages of the project. Finally, researchers analyzed the key elements of the model, processes and network and developed a set of three descriptive figures included in this report: The *QUEST* Model, Stages of Cross-Platform Production and Pathway to Collaboration.

QUEST Model Spread

During the summer and fall of 2009, eight public media organizations engaged with KQED in a set of virtual planning meetings. Six of these stations ultimately participated in the Hubs Collaborative (See Table 1, below.).¹ The regional hubs – WVIZ/WCPN/Ideastream Cleveland, KCTS Seattle, UNC TV North Carolina, NET Nebraska, WHYY Philadelphia, and WPT/WPR/ECB Wisconsin – represented not only different regions of the country, but also wide diversity in terms of size, reach, and platform: state-wide versus city, university or not, dual-license or not. These differences resulted in varying funding streams, staff sizes, audiences, and resources.

¹ WTTW Chicago chose to drop out of the project early on due to lack of support from upper management. WEDU Tampa participated in project activities through Spring 2010. From the beginning, WEDU had extremely limited financial and personnel resources, and ultimately the staff were unable to devote the time to continue participating in the collaborative.

Table 1: *QUEST* Regional Hub Partners

<i>Regional Hub</i>	<i>License</i>	
NET – Nebraska	Statewide	Dual**
WPT/WPR/ECS – Wisconsin	Statewide	Dual
UNC-TV – North Carolina	Statewide	TV
KCTS – Seattle, WA	Community	TV
WCPN/WVIZ/Ideastream – Cleveland, OH	Community	Dual
WHYY – Philadelphia, PA	Community	Dual
WEDU – Tampa, FL*	Community	TV
WTTW – Chicago, IL*	Community	Dual

*Dropped out of the project.

**Dual=TV/Radio

Once the pilot collaborative came together, the seven participating stations adopted a common naming/branding protocol for the *QUEST* project, as follows: *QUEST* Nebraska, *QUEST* North Carolina, *QUEST* Northwest, *QUEST* Ohio, *QUEST* Philadelphia, *QUEST* San Francisco, *QUEST* Wisconsin. The hubs will be identified using these names in the report, and quotations will be ascribed to individuals based on their role in the project – Hub Team Member, Hub Team Leader, Collaborative Leadership Team, and station senior manager (that is, not directly involved in the *QUEST* project). The regional hubs then took on the task of learning and adapting the *QUEST* model within their own organizations, which required them to wrestle with a set of complex questions, as follows:

- What is *QUEST*?
- What does it mean to work cross-platform? What is multi-media production?
- What does “educational” media mean? What role does Education play in production process?
- What does it mean to be a *QUEST* community partner?
- How will each hub raise funds and sustain the project?
- What roles will each of the hubs and KQED play in the content collaborative?

The evaluation report from Year 1 of the project (Bandy, Rockman & Panahandeh, 2010) delineates the hubs’ progress in addressing these questions. An abridged version of that report can be found in Appendix B; this section presents an overview of the findings from that report.

LEARNING THE MODEL. KQED’s initial *QUEST* project grew out of an extended process of adaptation and reflexive growth, informed by ongoing evaluation. Thus, KQED was able to offer the hubs a proven model for cross-platform production of local science content and

community engagement. Throughout the first year of the Hubs Collaborative project, each station was introduced to the opportunities presented by *QUEST* San Francisco's cross-platform production model, and at the same time, the challenges inherent to organizational change.

Within traditional media organizations, television and radio producers work independent of one another and have quite different timelines, budgets and work processes. In addition, the work of a station's education and interactive staff typically begins *after* media pieces have been finished and made ready for broadcast. Thus, the move toward an integrated, cross-platform production team requires people at these organizations to shift cultural norms, adopt alternative work patterns, and develop new skills (See Figure 2). As the hubs took on this challenge, *QUEST* San Francisco offered a successful example to follow and lessons learned from its own journey to breakdown barriers and develop shared work processes. Still, each group had to find the best ways to adapt the model within their organization's existing structures, resources, barriers and missions.

Figure 2: Stages of Cross-Platform Production



SETTING GOALS. During the project symposium held in Year 1, evaluators led each hub team in a goal-setting exercise. Based on their unique circumstances, each hub team outlined a set of outcomes they hoped to achieve on their path toward implementing the *QUEST* model, such as: to build an initial team to produce pilot media content and educational resources, to secure buy-in from senior management, to explore pilot partnerships with community partners, and to acquire funding to produce pilot content. (See Appendix B for a table of the hubs' Year 1 progress toward goals.)

The Content Collaborative Pilot

During the second year of the project, the hub teams transferred their focus to the pilot of the content collaborative. Their vision of a new way of working together in public media required the hub teams to address an additional set of challenges that ranged from the nuts and bolts of production to high-level, conceptual thought and inquiry. In dealing with these challenges, team members also experienced opportunities for learning, growth and change.

COLLABORATIVE VISION. Historically, public media stations have produced content independent of one another. To varying degrees, individual stations produce content for their local markets. Some stations also develop content for NPR and national PBS television series like *NOVA*, but the production model used for a series like *NOVA* cannot be considered collaborative. *NOVA*'s producing stations work on assignment, developing pieces within the program's timeline and established protocols for content, style and format. So, while a number of stations may contribute content to *NOVA*, individual stations do not share resources or content.

That is becoming in public broadcasting a huge issue of how do we share content. Do we have to go through NPR or PBS to share what we're doing? The approach that KQED is taking is moving that direction is, "No, we don't. Maybe they don't have the full answer, but the direction they're moving in is the same one I think a lot of people in this industry are moving in. ~Senior Manager, QUEST Philadelphia

The seven hub stations sought to create a quite different mode of co-production and content sharing. The initial vision for the collaborative called for each hub to create its own cross-platform *QUEST* team. Each team would then produce multi-media science and nature content on its own, brand the content as *QUEST* and distribute the content to local audiences and to the other participating hubs. To facilitate this sharing of content, which would be available online and might be packaged into a broadcast series, the hub teams would develop and use common editorial and technical standards. In this manner, each hub would have

access to a larger and more diverse set of multi-media content and educational materials than it could produce on its own. It was not, however, feasible for the group to realize that initial collaborative vision during this phase of the project. The pilot plan was revised to more closely resemble a national [*NOVA*] production model with KQED as the lead editorial, packaging and distributing station.

Collaborative Challenges

A number of factors led to this scaled-back version of the collaborative for the pilot, which in turn created additional challenges. While all of the stations made progress toward implementing the *QUEST* model at their stations in Year 1, none advanced as far as they had anticipated. *QUEST* San Francisco's team leader reflected that, while their team was able to share insights and lessons learned as they created their cross-platform production model, the other stations still had to address complex questions and find their own paths to organizational change. In short, the challenges these teams were undertaking proved even more difficult and complex than any of them had anticipated. Consequently, at the beginning of Year 2 San Francisco was the only hub with an experienced *QUEST* team, cross-platform technical and editorial work processes, and established distribution channels.

Closely tied to this first issue, the stations struggled to find the resources (human and financial) to devote to the project. Collaborative activities halted for a number of months while the group sought additional funding for content production, significantly reducing the amount of planning time and compressing the production schedule. Ultimately, CPB

provided funding for the content produced for the collaborative. Their request that *QUEST* San Francisco assume the role of lead producer for the pilot further constrained the collaborative elements of the project. Finally, the teams had to deal with unanticipated branding and rights issues that restricted the hubs' use of the *QUEST* name and music used in science pieces produced outside the pilot process. As a result, the hubs were unable to label their non-Collaborative, local science content and outreach activities *QUEST*.

QUEST hub team members and leaders unanimously expressed frustration at the compressed timeline and shift in scope of the collaborative pilot. Team members felt that, far from its original vision of collaborative content sharing and production, the project had become “work for hire,” and many worried they were merely producing content for *QUEST* San Francisco's use.

It was frustrating to be kind of pitched to do one thing and then after we did it, to be pulled back from that, and then beyond that, move to a point at the end where I would say, the final stage of the project became much, much, much less about inter-platform cooperation and fostering than...basically a work for hire project. ~Team Leader, QUEST Wisconsin

Editorial and Technical Processes

Competing interests and lack of communication led to frustration with the editorial processes employed in the pilot. The hub teams wanted to produce content that capitalized on their existing expertise and relationships and met the needs of their organizations and audiences. The San Francisco team needed to coordinate and deliver a diverse set of assets, packaged into their local *QUEST* series and appropriate for national distribution. To facilitate this process, the hub teams were asked to submit and comment on story ideas through a wiki developed and used by San Francisco's team. While the lead station's team members became frustrated that the hubs were not making full use of the wiki, the hub teams expressed confusion and frustration with the format and procedures of the complicated wiki. Ultimately, many hub team members did not understand why stories were chosen or rejected, and they felt the story selection process lacked transparency.

Learning Curve. *QUEST* San Francisco's workflow and technical standards required a steep learning curve:

- More than 80% of hub team respondents to the Reflection Survey said that the workflow process was *much different from* or *somewhat different from* the work they typically do.
- On average, hub team members reported spending 1/4 to 1/3 of their project time learning *QUEST* San Francisco's workflows and procedures.
- San Francisco team members reported spending more (25%) or much more (75%) time working with hub producers than they would spend producing similar content in-house.

Hub teams were dealing with foreign work systems and processes, at times incompatible technology, and different and often more challenging and intensive editorial guidelines and requirements. At the same time, the San Francisco *QUEST* team was working to scale its internal processes and share them with hub teams while simultaneously managing the production of a series across seven organizations. Many hub team members felt the amount of time devoted to learning processes would decrease in the future; however, they also wanted to see a simplified and more collaborative workflow put into place. In fact, 76% of survey respondents indicated that a simplified workflow process was *very important* to the success of a future collaborative.

Beyond learning to work within *QUEST* San Francisco's editorial and technical processes, many hub team members were creating forms of digital media assets, such as audio slideshows, for the first time. Not only were they frequently attempting to create new types of content, but they were also doing so under tight deadlines and extremely high standards of production, which they were not always used to having.

To do deliverables in that format, I think it's taken longer than any of us anticipated. One, because we're not used to doing those deliverables; but, two, to meet the technical standards...it really showed us what our weaknesses are. ~Team Member, QUEST North Carolina

QUEST Nebraska's team leader suggested that, in hindsight, the group should have planned to create fewer asset types and fewer overall deliverables for the pilot phase.

Capacity

A lack of adequate human and financial capacity undermined the pilot efforts at most of the hubs. This lack stemmed from the realities of limited resources and "doing more with less," compounded by a corresponding lack of commitment from senior management at most hubs. Many senior managers did not see the collaborative as a long-term project, and they therefore did not invest the human and financial resources needed to truly implement a cross-platform production team. While the degree varied across stations, team members at all hubs felt the pilot content production was added on to their already full workloads.

I think like all public media stations our biggest challenge right now is resources. So at the same time that we are trying to make this transition into beyond broadcasting it is also at a time when we have significantly lost positions and we are all learning to get very creative to do more with less people and less financial resources. ~Senior Manager, QUEST North Carolina

During final site visits, team leaders and team members at *QUEST* Northwest, Wisconsin, and North Carolina felt unanimously that many of the difficulties and frustrations they experienced during implementation were due in large part to this lack of human capacity. Although 84% of survey respondents *agreed* or *strongly agreed* that their station created a cross-platform *QUEST* team for the pilot, interview data indicated that these teams were not adequately resourced. Rather, staff members who expressed interest in and/or who had the right skills set took on pilot activities on top of their regular assignments. In the

end, these team members were stretched too thin and became overwhelmed with competing priorities.

If we have a web producer who most of his day is spent trying to figure out how the pledge team can change their form on the website for making it easier for people to pick the premiums they want when they join or other sorts of infrastructure kinds of things, then there's just not the head space to really focus time and creativity on advancing the QUEST content project. ~Team Member, QUEST Northwest

Frankly, everyone is so overloaded here, we're really kind of getting bogged down in forward progress, because we didn't have one person who said this is my top priority. ~Team Leader, QUEST Wisconsin

As a result of these fractured priorities and overloaded schedules, many hub teams did not come together as a cohesive unit or develop a sense of identification with the project:

We have our weekly meetings and people are working together otherwise but [what still needs to happen is] building up that sense of having a common purpose in a single unit. We're not living in the same Quest bullpen that they are and able to work on everything as Quest only. ~Team Leader, QUEST Nebraska

QUEST, it just feels like it's own sort of separate little project out there from what I normally do. ~Team Member, QUEST Northwest

On the other end, QUEST San Francisco's team was faced with frequently distracted and overwhelmed producers whose first priority was to complete work for their immediate supervisors and colleagues as part of their regular jobs.

Leadership

Leadership proved to be a critical factor in all of the challenges faced by the hubs. Resources and processes were necessary to complete the pilot production, but they were not sufficient. Leadership issues arose at multiple levels across the hubs, although the specific issues and the degree of the problems varied. They included the absence of strong signals from senior management that the collaborative pilot was a priority and a lack of internal, day-to-day project coordination. Nearly all survey respondents (95%) indicated that leadership and high level buy-in were "essential" components for the future of the collaborative, as well as for cross-platform production. Without concrete funding and formal agreements in place – which were delayed significantly during Year 2 while the teams waited for funding – hub team leaders struggled to get this buy-in from station executives.

There's verbal support of the idea of collaboration from our leadership all the way from the top. But there was never a mandate. You have to put power and means behind it – and clear, specific directions. ~ Team Member, QUEST Wisconsin

In order for our institutions, that have their own complexity as KQED does, we have to have certain things aligned, which includes finance, all of the other kinds of things that take place. I

think that's been a problem because I think you wind up having more engagement institutionally when those things are taken care of. ~Team Leader, QUEST Nebraska

Like their team members, the hub team leaders felt overwhelmed and were layering this project on top of their normal workloads. Despite frustrations with leadership, 88% of survey respondents *agreed* or *strongly agreed* that their supervisor supported their work on the collaborative pilot. Still, multiple team members at different stations emphasized the need for a project manager to coordinate the team and facilitate communication.

We just didn't have that cohesive leadership between the departments, and so we all continued to kind of work in our own little silos. ~Team Member, QUEST Northwest

Beyond empowering staff to prioritize the project, leaders also need to be able to see the vision, the big picture:

[The designated team leader] has to be a person that really understands the subtlety of how these things need to fit together. You can have somebody from that leadership standpoint that can manage people and get projects done but it's that deeper understanding of how and why the pieces fit together. ~Team Leader, QUEST Wisconsin

Collaborative Outputs

Despite these complex challenges, the participants in the collaborative pilot persevered, ultimately producing and delivering a wide variety of high quality educational science and nature media assets, including:

- two 4-part radio series delivered to NPR and PRX;
- TV segments packaged into 10 half-hour programs delivered to all of the hub partners;
- multiple educator guides uploaded to PBS LearningMedia;
- 10 Web-only videos, 10 Web extra videos, weekly blog entries from each hub, and text to accompany each asset on the website; and
- a redesigned, interactive website.

Beyond sharing these media assets with one another and on the website, the regional hubs have distributed content to other stations in the public broadcasting system. A *QUEST* series on the recycling industry, "Recycling in America," was picked up by WAMC in the northeastern US, WTIP in Cook County, Minnesota, WRVO in New York state, and KZYX in Mendocino County, California. The special series "Coal at a Crossroads" was picked up by no less than nine public radio stations around the country. In addition to the creation and distribution of these media, the hub teams developed an initial set of shared workflows and procedures on which to build future efforts. All participants agreed that these processes would need to be streamlined and revised moving forward, and the technical problem-solving and lessons learned in this pilot phase will inform a next iteration.

Collaborative Opportunities

The challenges presented by this Hubs Collaborative pilot were met and even outweighed by the opportunities it offered to each of the participating organizations. Most (76%) survey respondents either *agreed* or *strongly agreed* that participation in the Hubs Collaborative was valuable for their stations. Team leaders and members felt that their participation in the project yielded valuable opportunities for organizational and professional development, learning and relationship building – both within their own organizations and among the hubs – that will extend beyond the scope of this pilot.

The interactions I have had with other people at other stations have been great. I've learned a lot. I'm inspired by their work. It's motivated me to do a better job and tell a better story. So I really appreciate that and I really admire these people, and I want to continue working with them in whatever way. ~Team Member, QUEST North Carolina

The definite high point of this has been getting to know our colleagues across the board, at these other platform organizations [WPT, WPR, ECB], and I think forming those bonds of trust, which are huge and understanding that while we may not have a completely apples to apples mission, there is enough significant overlap in missions that it does make sense for us to collaborate, and there are a lot of positives and a lot of benefits to whatever cost it might also come to us at, so I think that is worthwhile. ~Team Leader, QUEST Wisconsin

Serve Their Missions

The hub teams felt that this project helped them serve their missions and develop their organizations in several ways. From the start, the hub leaders were unanimous in their excitement over the *QUEST* model and its potential to change business as usual at their respective stations, strengthen their products, and improving each organization as a whole. This perspective held for the hub teams to the end of the pilot.

I think among the things that I love about the initiative are that it's multiplatform and so that's the future of public media. It's creating really compelling content that can work on television, on radio, on-line. It brings stations involved further along in their development and disciplines content departments to work in that multiplatform interdisciplinary way so that's really good for the health of the organization. ~Senior Manager, QUEST Northwest

- 82% of survey respondents agreed or strongly agreed that *QUEST's* multi-media production model was aligned with their station's mission.
- 75% of survey respondents agreed or strongly agreed that the *QUEST's* content sharing model is aligned with their station's mission.
- 93% of survey respondents agreed or strongly agreed that they would like to see cross-platform multi-media production spread within their organizations.

This project also allowed the hub teams to focus, or continue to focus, on producing high quality science content.

QUEST project has been, and is, an opportunity for us to give some specific shapes to a strategic priority...to create local content around science. ~Team Leader, QUEST Northwest

QUEST is playing an important part in helping us bring science content to our viewers, to North Carolina Now. QUEST gives us the space in which to make science more of a priority and to do more coverage of science, research and things that are happening here in North Carolina. ~Senior Manager, QUEST North Carolina

We've always been a science station, so that's always been a good fit and interest. ~Team Leader, QUEST Nebraska

Organizational Change & Learning

At all 6 sites, station leaders and team members saw the QUEST Hubs Collaborative pilot as an opportunity to engage in a multidisciplinary approach to content production, changing the workflow process and breaking down the structural rigidity of the stations' platforms. Several North Carolina team members commented on how QUEST has contributed to shifting the TV - centric nature of the station.

I've seen people sit down at the table and collaborate and talk about things when I never thought I'd see them sit in the same room and do so. It's just been interesting to sit and watch all of this happening. It's just pretty amazing. ~Team Member, QUEST Nebraska

We see opportunity here in continuing to develop the QUEST model, continuing to work through that workflow to figure out how can we continue to develop more projects that have components that are beyond broadcast. ~Senior Manager, QUEST North Carolina

In Ohio, where radio and TV staff members were working cross-platform before this project, the QUEST team leader commented that this project was "quite helpful" in surmounting another hurdle, that is, bringing education and content together.

LEARNING. At all stations, QUEST team members felt that they had grown professionally through their participation in the hubs collaborative.

- 70% of respondents agreed or strongly agreed that they had learned about other platforms/departments outside their own.
- 79% of respondents reported gaining knowledge from interacting with other hubs.
- 50% of respondents gained new production skills.
- 69% of respondents felt that participating in this project was valuable for them and their careers.

Notably, the average ratings for these survey items were highest for the Interactive and Education staff, which indicates that the Hubs Collaborative pilot was particularly beneficial in bringing these often-marginalized groups closer to the center of the production process. Both within their own organizations and through interactions with QUEST San Francisco staff, team members learned about other platforms and practiced implementing a cross-platform production model.

For the QUEST project, we took people who normally may not be in the same room together and put them in the same room together...we were able to have our people make new connections with radio, with television, and to start thinking in some of those more collaborative ways. ~Senior Manager, QUEST Wisconsin

Production, Interactive and Education team members also experienced rare opportunities to discuss their craft with professionals outside their own organizations, sharing with one another creative approaches to storytelling, media and educational materials development and outreach activities.

Moreover, both survey and interview data indicated that the hubs were beginning to apply QUEST's multi-media production model to other content areas or projects and that a systemic shift may be taking place.

I think that throughout our time working with QUEST we have been able to learn [the QUEST] model, and we already have started talking here at UNC TV about how can we use what we have learned with QUEST perhaps in other aspects of our original productions and really think about making all of our original productions more multimedia ... with QUEST we are really...learning how to break out of that mold and think more in terms of how can we use this content to reach viewers in others ways and in different places. ~Senior Manager, QUEST North Carolina

QUALITY WORK. As is often the case with networked projects that allow professionals to learn from and engage with one another, this pilot raised the level of production at many of the hubs. This outcome resulted from a combination of learning new skills to produce assets and meeting QUEST San Francisco's high production standards. Overall, hub team members felt that the quality of the finished products for this project was higher than what they typically produce. (It's worth noting, however, that while quality was perceived to be only *slightly* higher, time spent producing the content was perceived to be *much* higher.) Several hub team members stated that working with QUEST San Francisco's team improved their stories, and one pointed out that they were pleased to have their work showcased on the website alongside such high quality pieces. The survey responses of QUEST San Francisco's staff, which rated the content produced by the hubs overall as the same as to somewhat lower than what they were used to, indicate that a gap persists between the expectations of the various hubs the San Francisco team, however.

Relationship Building

*It's a rarity in public media to develop this kind of enduring collaboration.
~Team Leader, QUEST Nebraska*

Through informal interactions and regular, structured meetings (monthly webinars, weekly team leader phone calls, two symposia, and a team leader convening), QUEST San Francisco's staff devoted a great deal of time to relationship building and communication. This process – one of the most vital aspects of a networked project – served the group quite well over the course of the pilot and as the hub team leaders prepared for a possible continuation of the project.

As may be expected in a project incorporating so many organizations and individuals, the lines of communication did not always run smoothly, but the relationships and trust that were built up helped keep the project moving forward. For instance, the project's second symposium took place in the midst of a great deal of tension over the altered scope and compressed timeline of the pilot. Through efforts to open the lines of communication, including a small group session to discuss the issues teams were having, the *QUEST* San Francisco staff gave the teams the opportunity to understand one another's goals, concerns and issues. By the end of the symposium's first day, there was a palpable lessening of the tension in the room. Furthermore, this discussion revealed internal breakdowns in communication that could be addressed, that is, most of the team members present had not known why the project's scope had shifted to what they were viewing as "work for hire" in the scaled down pilot.

Nowhere were the efforts to build relationships, communication and trust more evident than with collaborative leadership team, made up of one senior person from each hub. Over the course of Year 2, open communication efforts strengthened the relationships among the collaborative leadership team members, allowing them to relay their staff's frustrations and concerns, express diverse opinions and priorities, and collectively seek workable solutions for the pilot and the planning of the future of the project.

I think, surprisingly, as hard as it's been, we still have a group, we still have a vision, we still have a collective. I feel like we're all pulling in the same direction. I really do. I think that's a real testimony to Sue Ellen and her leadership, and the QUEST team, KQED. ~Team Leader, QUEST North Carolina

Dede and Rockman (2007) argue that the hardest challenges of scale are:

- sharing failures;
- revealing limits in capacity;
- letting go of what's "yours"; and
- acknowledging what you don't want to do.

When the hub team leaders met in Omaha to debrief on the pilot and shape the possible continuation of the collaborative, they were able to discuss challenges related to each one of these factors. This open, honest dialogue could only have taken place on a foundation of trust, and it allowed the leaders to chart a path to the next stage of the collaborative.

The Future of the Collaborative

So I think for public broadcasting to be relevant in the decades to come it needs to find ways to engage and inspire new demographics of people, younger people, people of more various ethnic backgrounds. This kind of project has the real potential to do that nationally. I like that idea of basically bringing PBS and NPR into the 21st century. ~Team Member, QUEST San Francisco

With this project, KQED's *QUEST* team invited the regional hubs to embark with them on a journey into the unknown. They began with a vision of a new way forward for public media, a vision of networked science content production and sharing that would be more than just local but not quite national. From the beginning, all of the participants knew this journey might prove difficult and would require them to address complex questions. They also believed it was essential to find a more efficient, sustainable way of creating and sharing multi-media content within the public media system.

As the pilot phase of the collaborative ends, this journey has not concluded. The pilot served as an interim step along the path toward realizing the project's collaborative vision. Each step proved more complicated and time-consuming than even the team leaders had anticipated, but this factor was not out of line with what they were trying to accomplish. Research on the establishment and evolution of networked projects reveals that such work does progress in stages and organizations may achieve different degrees of network integration (Gajda, 2004), including:

Cooperation ⇒ Coordination ⇒ Collaboration

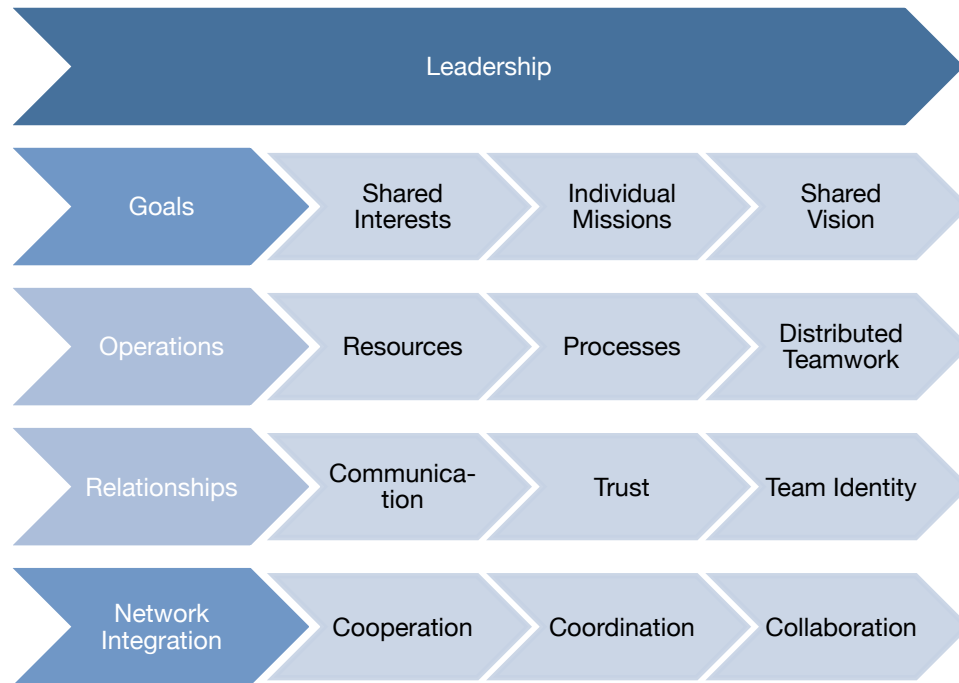
Cooperation. In the first year of this project – sharing and adaptation of the *QUEST* model – the stations needed to achieve the most basic form of network integration, *cooperation*, in which participants share information and offer mutual support (Gajda, 2004). Drawn together by an initial shared interest in cross-platform production, hub team members set goals and made plans for how to adopt the *QUEST* model within their own organizations. Aside from sharing ideas with one another and learning from *QUEST* San Francisco's team, participants needed to consider only their own organization's goals and interests.

Coordination. With a shift in focus to the content collaborative, Year 2 of the project required the hub teams to achieve a deeper form of network integration. The teams originally planned to bring their nascent network to the collaboration stage. Responding to circumstances, they instead reached an interim level between cooperation and collaboration called *coordination*, the sharing of common tasks and compatible goals (Gajda, 2004). In this level, the teams needed to work together within a shared set of systems and processes, relying on one another to fulfill their portions of the project and on KQED's staff to coordinate activities.

Collaboration. The vision for this project called for *collaboration*, defined as a network with integrated strategies and a collective purpose. Should their network continue to progress

along a pathway toward collaboration, the teams will need to define and collectively work toward a shared vision, build a sense of team identity, distribute tasks, ownership and responsibilities, and maintain thoughtful and engaged leadership (See Figure 3).

Figure 3: Pathway to Collaboration



Toward a Shared Vision

Through a great deal of discussion and debate, the collaborative leadership team members have determined that they would like to continue to build on the work of this pilot, to develop a truly collaborative network. Collectively, the leadership team searched for common ground between serving their individual missions and maintaining the vision of the collaborative. This negotiation between “self-purpose” and “network purpose” must take place in any network, and the vision of the network must evolve to balance those needs for all members (Anklam, 2007).

In this case, one *QUEST* team leader pointed out the “immeasurable value” of figuring out the content collaborative and does not see this network purpose as competing with their station’s mission:

We’re talking about continuing the content sharing concept while simultaneously still serving our local audience and potentially being able to get funding to serve the local audience while developing this national service that makes sense. Then we’re not taking anything away.

We're not making a decision to develop this content sharing at the expense of our local audience. It's a great opportunity to do both. ~Team Leader, QUEST Wisconsin

Indeed, the vision for the collaborative has evolved to balance these needs, and the hubs have decided to move forward with the project, with one exception. The team from QUEST Philadelphia determined that continuing in the project would not allow them to meet their station's goals and organizational mission, and they have chosen not to participate in the future.

AUDIENCES. Of course, the primary purpose of this pilot and the proposed next phase is to better serve public media audiences. Due to the compressed production timeline of the pilot during the final months of the project grant, researchers were not able to gather data and feedback from audience members in the seven regions. The content will air in most regions while this report is being finalized and submitted, although preliminary distribution data (see Collaborative Outputs section) indicate the potential appeal and spread of the QUEST science content across the regional hubs and beyond. In the future, the hub teams hope to discover how and why audiences use their online content, how they react to content from other regions, and how educators use their materials in the classroom.

If we are going to be a part of the movement that changes teacher practice, that leads to more kids graduating from college or high school and leads to some of these other things then we have to be providing the tools that are going to really do that. We've got to change what we push out as public media's product to educators if we really want to have that role, if we want to be smarter than the media that's readily available everywhere. ~Team Member, QUEST Wisconsin

Distributing and Supporting Teamwork

EFFICIENCIES. Through the content collaborative, the hubs hope to realize efficiencies in production. First, however, the teams will need to simplify their shared work processes. The collaborative leadership team envisions a more efficient system that allows them to expand their content offerings beyond what they can produce individually:

It would let us leverage that by sharing the content that we do produce with each other so that all of us can then put more material on the air or on the web or in the classroom or wherever it happens to be. ~Team Leader, QUEST Northwest

The content collaborative is fully connected so that we're able to draw from other stations on all of their platforms so that depending on what they're creating we're able to use audio assets, video and things like that. That way we can build our own stuff either half hour television programs or web packages and the like. ~Team Leader, QUEST Nebraska

During the pilot phase, the processes required for the complex and time-intensive work reduced the efficiency of having access to a pool of shared content. Aware of this issue, the collaborative leadership team plans to adjust these work processes in the future, in part by returning control of production to each hub, using shared editorial and technical

guidelines, rather than having one station act as the lead. This process will both reduce the level of learning and complexity for producers and will allow each hub to develop content that serves its individual goals. Team members at multiple hubs indicated support for this distributed teamwork in their survey responses (anonymous):

Instead of a top-down "parent-child" relationship, I'd like to see QUEST become more of an equal "peer-to-peer" relationship.

De-centralization – encourage more collaboration among the participating stations rather than everything going through the lead station.

Continuing to move from a model of central control to a collaborative model of shared management and editorial with the ability to serve both local and more-than-local audiences.

CAPACITY. To succeed, this distributed teamwork must be fostered and supported with financial and time commitments at each regional hub. Without the financial support and clear directive to build teams and create content, the momentum gained in this pilot may fade in the face of more immediate work demands. *QUEST* team members at multiple hubs expressed that, while they would like to see the project continue, they could not envision themselves working on it unless their workloads were shifted accordingly. Leadership at all of the hubs needs to reassign staff and fund positions to create dedicated cross-platform teams. To set up these teams – and the project – for success, station personnel may need to further develop their multi-media production skills.

Fostering Team Identity

While the collaborative leadership team emerged from this pilot with firmly established relationships and communication patterns, work still needs to be done to foster such relationships within and among the staff members at the hubs. *QUEST* team members need to feel that they are, indeed, part of a team and valuable contributors to the project. The presence of a project coordinator on each team may provide opportunities for team members to collaborate and form relationships within each hub. Well-planned relationship building, meetings and professional development could also help build trust and a sense of community among the hub teams. Concurrently, *QUEST* San Francisco's team may need to open their own tightly knit community and sense of identity around the *QUEST* project to make room for it to evolve along with the network.

Leadership

Leadership is fundamental to all elements of the next stage of the collaborative network. Both *QUEST* team leaders and senior management at the hubs must create the conditions under which their staff can succeed and the collaborative vision can be achieved. In the words of one team member, leaders must create a “mandate” that this project meets the needs of their organization and is important to their future. They need to establish structured opportunities for collaborative work and communication across platforms. The

collaborative team leaders have come together in support of their shared vision for the next phase of the Hubs Collaborative. Now, they will need to instill support for that vision in their staff and executive leadership. Moreover, as QUEST San Francisco's team moves out of the center, the other hubs will need to take responsibility for some of the tasks and challenges of supporting the network, even when those activities do not directly benefit their own organizations. Ultimately, this group needs to continue to build on the valuable work of this pilot collaborative network, allowing it to continue to evolve toward a new vision for 21st Century public media organizations.

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Appendix A: QUEST Collaborative Asset Deliverables

QUEST television content available for broadcast by KQED and other public broadcasters, including at least 35 original segments that include:

- a) 15 original 10- to 12-minute segments produced by KQED;
- b) 12 original 2- to 3-minute segments produced by KQED;
- c) 4 original 10- to 12-minute segments produced by public media partners; and
- d) 4 original 2- to 3-minute segments produced by public media partners;

48 QUEST radio reports produced by KQED and distributed via KQED FM and other radio and online outlets;

6 QUEST radio reports produced by the project's public media partners and distributed via KQED.org/QUEST, additional radio outlets, and other online sources. QUEST partner radio productions (two each, per the three stations with radio capacity) will be produced in collaboration with a topical series led by KQED. For example: a QUEST radio series exploring alternative energy challenges and their connection to climate change, originally broadcast on KQED FM and recently repurposed for a weekly series on NPR's *Morning Edition* August 16-20, 2010;

12 total video "web extras" developed from new/existing television content and distributed online, including:

- a) 4 created by KQED; and
- b) 8 created by QUEST public media partners;

20 "web only videos" consistent with the QUEST web series, "Science on the Spot," including:

- a) 14 created by KQED; and
- b) 6 created by QUEST public media partners;

8 audio slide shows distributed online, which leverage QUEST radio reports and accompanying still photographs and/or additional voice over. At least 3 audio slide shows will be produced by QUEST public media partners;

5 to 7 QUEST blog posts each week. Blog contributions are made by QUEST media producers, education staff, and representatives of local partner organizations and education centers. Beginning in January 2011, QUEST public media partners and their local partner organizations will provide at least 1 to 2 blog posts per week; and

30 teaching assets consistent with national and/or state curriculum standards. Digital education content includes QUEST media, background materials, lesson plans, and additional resources, and will be distributed online, including via existing education repositories such as iTunesU, Teachers' Domain, and other public media frameworks. At least 10 teaching assets will be created by QUEST public media partners.

Appendix B: Year 1 Evaluation Findings

Year 1 of the Hub Collaborative project focused on goal 1, **extending the *QUEST* model to the regional hubs**. KQED's *QUEST* team engaged in a series of activities to share their production and partnership model with the hubs. They held monthly hub meetings via webinars, invited team members from each hub to attend a two-day symposium in San Francisco, developed and helped populate a collaborative hub wiki space, shared information, work processes and forms, and conducted site visits to each of the hubs. The hub teams were asked to discuss this information within their organizations and to develop a plan for adopting and adapting the *QUEST* model at their stations.

Evaluation Activities

Throughout Year 1 of the project, researchers engaged in evaluation activities designed to document the process of *QUEST* model adaptation and organizational change.

WEBINARS. The *QUEST* Hub Collaborative webinars were monthly virtual meetings held to discuss upcoming activities and project-specific concerns and questions. Researchers observed each of these webinars. In the fall, webinars revolved around planning for the first face-to-face meeting of the hub teams, the January Symposium. After the Symposium and through Spring 2010, KQED staff shared content development and workflow tools with the hubs and worked with the teams to develop a grant proposal to the Corporation for Public Broadcasting to secure additional funding for the pilot of the content collaborative.

SYMPOSIUM. The two-day January Symposium brought together team members from each of the hub stations for an in-depth look at the KQED *QUEST* model. Members of the KQED *QUEST* team presented information on the ways they produce the series from idea formation to final production across platforms. Attendees learned about scaling the model, fundraising and budgeting, and the role of Education within the *QUEST* team and the larger community. They heard from *QUEST* community partners, had a presentation from iTunesU, and attended a science café. Throughout the symposium, members of KQED *QUEST* were on hand to act as mentors for each hub team.

During the Symposium, researchers led a workshop on goal-setting during which they guided the hub teams through the process of creating a logic model. Each team was asked to develop a logic model for their station's *QUEST* project, setting specific outcomes for September 2010, the end of Year 1. Both REA staff and KQED mentors worked closely with the teams to develop the models. Once teams finalized their logic models, researchers followed up with each station via phone interview. After the interviews, REA staff created a table of September outcomes for each station based on the overall project outcomes identified in the proposal. Researchers then translated these outcomes into a series of planned next steps and "success in September" goals for each hub.

SITE VISITS. Between late June and September 2010, researchers collected a final set of data from the hubs via site visits and in-depth phone interviews, as follows:

Site Visits: KQED San Francisco, NET Nebraska, WHYY Philadelphia & WWIZ/WCPN/Ideastream Cleveland

Interviews: KCTS Seattle, WPT/WPR/ECB Wisconsin, UNC TV North Carolina & WEDU Tampa (debrief)

During these visits and calls, researchers followed up with each hub regarding their progress toward their September goals and changes to those goals, their thoughts about the overall project and the *QUEST* model, and their hopes for the following year of the project.

The next section presents the issues raised through the process of *QUEST* model adaptation, followed by a review of each hub's Year 1 barriers, progress and potential. The themes emerged through observations of meetings and activities and extensive phone interviews and site visits. At each hub, researchers spoke to *QUEST* team members, production and development staff members, senior management, and representatives from potential partner organizations. Researchers then coded observation notes and interview transcripts for themes both within and across hubs. Out of this process, they extracted a set of critical issues or questions that each hub was asking within its own organization and of KQED.

Opportunities and Challenges: Critical Questions

What is QUEST?

The *QUEST* model offers components for the hubs to establish and emulate. Within each of the components of the model, however, lies a set of choices for each hub to make, which will determine what *QUEST* becomes at their station. The Hubs Collaborative Project asks the stations to adopt the underlying concepts of each component in the model and *adapt* them to their unique needs, resources and circumstances:

I think the notion of the difference of adapting a project and originating a project is where we're trying to take elements of what they've accomplished and learn from them, and figure out what fits and what doesn't fit for us. Our resources are just different. Our operational structure is different. – WHY staff member

That adaptation requires each station to consider not only what *QUEST* would look like at their organization but also who would make those decisions and for what purpose(s) they would adapt the model. In seeking those answers, some stations are still not sure what *QUEST* will be, some know what they want, but still do not know how they will make it happen, and some want it to be many different things, depending on who one speaks with. Despite these differences, a set of common opportunities and challenges emerged.

SHIFT IN THINKING. The *QUEST* model represents a fundamental shift in the way public media organizations develop content, work together, and engage with their communities in the 21st Century:

And we're having parallel planning discussions about how well public TV is changing how we do business and becoming more like public "media," and that's still kind of a vague term we all define differently. You can say more than just television, so creating content for TV and radio but still online and involving a greater degree of community engagement. ... I think that we're just using new tools that are available, so using online services more effectively, partnering and using radio, and extending the value of what we do beyond the TV screen and into the community through really meaningful strategic partnerships and alliances, and then

also using online services in a new way so it's not just a place to post content or to expand reach, it's also a place for engagement and to really interact in a more meaningful way. – KCTS staff member

What does it mean to “interact in a more meaningful way?” Reflecting on an event in which they introduced *QUEST* to the community, one UNC TV *QUEST* team member commented:

We're learning, like everything else here, that we're used to putting up a booth and handing out paper. I remember one of the big problems with that was that we were going to an environmental event and we've learned to lean on paper in the hopes that people would just read it, similar to our TV programs. We're just going to give you these and hope you watch. I think when we truly adopt the Quest model we're interacting with people in a way we never have before and actually taking input. I think in subsequent events we've focused more on Q&A than just handing out materials.

An NET team member made a similar comment about how KQED's *QUEST* team interacts with educators: *It's not about deciding what educators need but it's listening to them and then that's a big shift. That's a big shift.*

These comments indicate that *QUEST* team members across the hubs are using the project to reconsider how they reach and engage their audiences. This shift in thinking has been brought about by the project's emphasis on digital technologies and interactive media as well as by the example set by KQED's approach to community engagement.

MANAGING EXPECTATIONS. All of the hubs are participating in this project because they want to kick-start or further their use of digital media. This opportunity has simultaneously stimulated excitement and apprehension in staff members. Most hub staff members were first introduced to *QUEST* when the KQED team members visited their station. Staff and team members at every hub visited indicated that the presentations by KQED staff left them excited, even “jazzed” about the project's potential. One KCTS senior manager commented that he very much appreciates what KQED is sharing with the hubs and thought their visit was highly effective because the staff received a first-hand look at the type of integration KCTS wants to implement: *So I think it's a very worthwhile investment of their time and resources, and I think it's going to have a real positive impact here and at the other places they're visiting.*

Yet, many staff members simultaneously were overwhelmed by the scope of what KQED has created and wondered how they would ever achieve the same. Of course, KQED is one of the larger organizations in the system and has developed the current scope of *QUEST* over the past six years. Most of the hubs will never achieve a project of similar size, let alone within 1-2 years. It will be up to team leaders at each site to manage those fears and expectations about the project, to set a reasonable scope for their organization, and to communicate that effectively to the staff.

LEADERSHIP. The issue of leadership emerged as a theme and a tension within the Hub Collaborative project. Who would decide what *QUEST* would be at each hub? Was the *QUEST* team leader effectively communicating the team's goals to both staff and senior management?

In part, these questions arose from the complex and flexible nature of the model, which may be adapted in a wide variety of ways and scaled up or down. Some of the hubs narrowed in on a targeted pilot implementation rather quickly, and others began adapting ideas from *QUEST* across

multiple areas of their organization. Still others continue to struggle to define the project – as KQED’s project leader commented, they “haven’t found their voice” – or needed to make some basic changes and decisions before even considering what *QUEST* would become.

A second aspect of this issue arose from KQED’s approach to leadership and some of the teams’ expectations. The WVIZ team leader commented that when he asked, “What is *QUEST*?” the response he received from KQED’s project leader was “What do you want it to be?” This exchange demonstrates the tension over leadership and direction. While some of the hubs wanted more guidance from KQED and specifics to present to their senior managers (e.g., *Candidly, the response has been mostly why don’t you call me when there’s something here to talk about.*), KQED’s team wanted evidence that each hub was taking ownership of the project and was ready to become a full collaborator. As KQED’s project leader remarked:

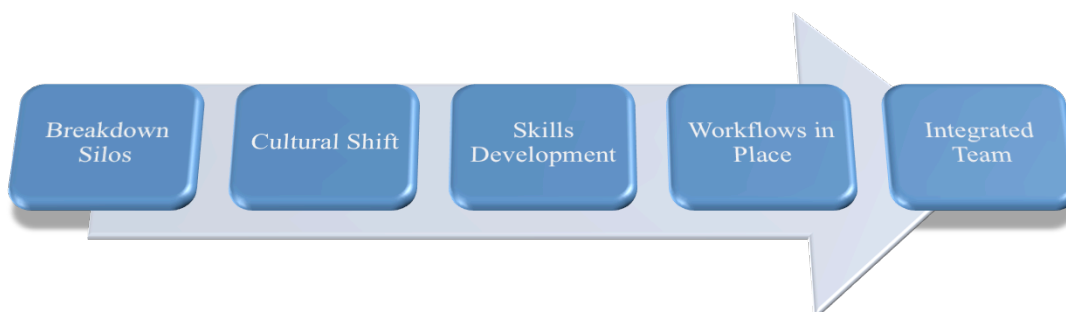
Because the project’s not just about producing content, I think that’s the sticky place because if they don’t actually take this model and attach it to something in their station or develop a project around this kind of a model so that it can actually have a chance of being sustainable. That’s the part that I can’t give them. So we’re in the hard space. We’ve had a lot of conversations. We’ve provided a lot of resources. We’ve given them a lot of guidance. It’s kind of really up to them now.

At this time, all parties are attuned to the present leadership challenges and are working to communicate expectations on all sides. Much of the concerns about leadership and scope stemmed from questions about the content collaborative, rather than the adaptation of the model at each hub. As the project moves into the pilot of that collaborative, it has been decided that KQED’s *QUEST* team will take on a much more active leadership role. The questions and progress for collaborative are discussed in more detail below.

What does it mean to work cross-platform? What is multi-media production?

Within traditional media organizations, cross-platform content production requires shifts in cultural norms and work patterns and new skills development. As Figure 2 (below) displays, this process does not occur all at once. Each organization must replace old ways of working and thinking about media production with new modes of interaction across departments and technologies. KQED’s *QUEST* team evolved their methods of working with one another as an integrated team over several years, and they are still growing and adapting. The hubs entered this project at different stages in this process, and all have used the *QUEST* project to think critically about their next steps.

Figure 2: Stages of Cross-Platform Production



The first step on the path to an integrated team is the breakdown of “silos,” that is, the organizational barriers that separate each platform (radio, TV, interactive and education). These walls may be taken down across the entire organization or for one project, which was the strategy used at KQED for the *QUEST* series.

Once formal barriers have been removed, project and organizational leaders need to foster a new cross-platform culture. Two Wisconsin team members described this new way of thinking:

Then with this project one thing that I'm excited about but I also think will be a challenge is kind of just letting go of those in a way constraints [of radio, television, education] and just opening ourselves up to let's just see how we can produce the most engaging stories in whatever way we need to.”

I really think that it would be great for what we're trying to do in terms of what we look at as content and is sort of broadened in even our individual organizations. I look at radio specifically and it's one thing for a reporter, for example, to simply do a news story but I really want it to sort of become more of the norm for people to look at content as a whole. It doesn't necessarily have to be simply for the radio broadcast or just for the web that there is this idea that content can be applied in so many different ways. It doesn't have to be just regurgitation on different platforms but there are different ways to look at content and actually apply it.

These comments reflect those made by individuals at many of the hubs. They indicate that 21st Century media production involves more than simply developing content in different platforms (radio and TV) and then re-distributing it via the Web and/or through educational outreach. New “audio” and “video” producers must learn to think about other platforms and to create a multi-media production and distribution plan.

Beyond learning to think about the media they produce in new ways, staff members frequently need to develop new skills on other platforms. This issue leads to another key question for the hubs: What do they mean by cross-platform? An NET team member pointed out that: *[KQED] QUEST doesn't work across platform*. They have what one might call **cross-platform collaboration**, in which producers from each platform discuss a story idea and plan production together, but each producer creates content for only one platform. In contrast, NET plans to

implement **cross-platform production** by training their staff to become multi-media reporters and producers each of whom will create content across media. Notably, KQED staff members do rotate to train and produce on other platforms, but they stay with one platform for a period of time.

Both approaches have value and drawbacks, as the NET team member pointed out: *I think that's [cross-platform collaboration] the most successful way to do it but it's the least efficient.* While NET plans to err on the side of efficiency, this team member expressed some concern that the approach could lead to lower-quality content. Would a talented and experienced TV producer truly become an expert radio producer or Web writer? As digital media further develop and converge, though, more and more multi-media production will occur, and even KQED is moving more in this direction. At the same time, a WHY? team member cautions that even trained multi-media producers cannot do everything:

They talk about backpack reporting but you can't do sound and video, and photographs at the same time, and have anything turn out to be good. So really, there's an understanding that if we want to do more involved pieces we have to have a team that goes at least a couple of people.

Regardless of which approach to cross-platform media creation an organization takes, it is essential that they put in place new workflow and project management systems. Radio and TV production require vastly different amounts of time and money. Radio does not include video, graphics and other visuals, and radio stories tend to be much shorter than television segments. Thus, these departments have completely separate production schedules and budgets. Across all of the hubs, staff members and managers expressed keen interest in KQED's story management systems, particularly their shared project wiki. This resource will be invaluable as the hubs progress toward their own integrated teams producing multi-media content.

The six hubs entered this project in different stages of cross-platform production – from almost no experience doing so to well along the path of breaking down silos and shifting the organizational culture toward integration. Whichever stage they started in, each hub made progress in Year 1 as they planned to implement *QUEST*. For all, the most difficult walls to scale seem to be those between the traditional production arms and interactive and education. This cultural shift is not easy, particularly for staff and organizations that identify themselves as television and/or radio producers...and are required to fill up their air time:

Old habits die hard and we still, even in our current discussions, fall into the trap well this is going to be a TV show and then we'll figure out the outreach later, or we'll figure out the web stuff or the education stuff later, or the marketing stuff later, fundraising stuff later. – KCTS team leader

What does "educational" media mean? What role does Education play in production process?

All public media organizations in the United States share a broad mission to produce educational media. That mission does not always come to the forefront of day-to-day operations, and many of these stations have a history of producing separate "instructional" content for use in educational settings. One NET senior manager explained:

Sorry to interrupt, but when we talk about education, I said we've been very involved in formal education. I think public broadcasting uses that word very liberally and considers all of their programming education. A couple of people have coined the phrase that there's education of the 'small e' and education with the 'capital E'. The small e is what you watch on the air, it's not for credit, it's for personal enrichment. But stuff that supports the teacher in the classroom, actual instruction, that's what we're looking at.

KQED QUEST's approach has been to create "small e" educational content for broadcast and Web and to supplement that with Educator Guides and trainings on how to use their content and digital media in the science classroom. While NET has an interest in developing content for the classroom, one NET staff member described a vision for all-inclusive educational QUEST content:

...pre-Kindergarten through the non-traditional lifelong learning component of education. It's got formal education in my mind, which is tied to curriculum-based things, which then ties into, like you said, teacher resources and things of that regard. But it also has, or should have, its involvement in professional development, maybe skills training, certainly lifelong learning. It's got a very large, in my mind, informal education component. So you are talking about pulling or delivering content out of the traditional classroom setting, and even out of what is becoming traditional digital classroom setting, and delivering it to informal venues like museums, et cetera. So to me, it's a broad, broad, spectrum.

A Wisconsin team member also weighed in on this issue, expressing a desire to move away from isolated, instructional content with this project and rather, to *work more closely with modern production as opposed to kind of the historical instructional television models. We're giving real world stuff to the kids in a way that can be used for education.* Ultimately, each hub will need to figure out what "educational content" means for them, but they will also need to ensure that content to be shared with the collaborative meets the group's definition.

Once teams have decided how to define education, production staff at each hub will need to learn how to integrate education into their activities. For producers who view themselves as journalists, first, this integration can raise concerns about journalistic integrity and mission:

What I don't want to see happen that it seems like from looking at what happens at some other public television stations is that it gets to be confusion between the educational mission and the journalistic mission. ... My feeling is sort of that's for the education folks to communicate to us what they'd like to do with it and there may be some things that we can build it or plan it but our thrust is still we're doing journalism. – WHY staff member

KQED staff faced this same issue when the QUEST project began. It represents part of the struggle inherent when different platforms and departments learn to communicate with one another and work together on projects that serve multiple audiences.

What does it mean to be a QUEST community partner?

The issues of journalistic integrity and communication occur not only within organizations but also as the hubs begin to work with external partners. Journalists need to maintain a certain distance from the topics and organizations they cover, and hub team members questioned how KQED's QUEST staff could keep this distance while also developing close partnerships. KQED producers do rely on its community science partners for scientific expertise and story ideas. However, they

have created and shared with the hubs partnership agreements that quite specifically outline the nature of the relationship. No partner is guaranteed “air time” or editorial control over a story.

Alternatively, potential community partners question what benefit their organization will receive from participating in the *QUEST* partnership, as one potential WVIZ partner outlined:

I guess maybe I don't have a good understanding of what is the benefit of coming aboard as a community partner. ... I know it's one of those things that would be questioned by folks at the executive levels of the organizations. They'd be like, okay, what do we get in return? We're investing X amount of dollars, X amount of staff time and what's the return on investment? This might be nice but are people seeing our organization on one episode every five years or whatever or being on the website or whatever? Is that going to help us meet our goals whatever they are?

KQED's partners asked similar questions in the beginning, and the current relationships between KQED *QUEST* and its community partners are the result of communication and negotiation. For instance, evaluation data revealed that partners were interested in learning more about digital media and developing their organization's websites. So, each quarterly partner meeting includes a digital media training session. When REA staff presented this activity as a potential benefit to the WVIZ partner quoted above, he reacted quite favorably.

All of the hubs will need to manage and develop their partner relationships, using lessons learned by KQED to smooth the process. KQED's *QUEST* team has learned that these relationships do need to be fostered and managed, a realization expressed by Cleveland's team leader:

I thought we were very experienced in working with partners and [KQED] QUEST wasn't going to teach us much. I was wrong. I think we work with specific partners on specific opportunistic projects very well, maybe actually in ways they don't. ... The process I thought that I got introduced to was this sort of regular meeting combined with an in depth sort of deep dive willingness to say, "So what's important to you and what do think are really interesting things we should be doing?"

This team leader indicated that senior management at his organization was quite interested in developing this type of partner relationship but he did not feel they understood the kind of commitment that took. Indeed, KQED hired a staff member to manage their *QUEST* partner relations.

The extent and nature of each hub's community partnerships will depend on both their resources and existing community relationships. The Bay Area *QUEST* partners represent a wide range of scientific, technical and environmental organizations. The hubs have the opportunity to expand scope of *QUEST* partnership. At least two of the hubs plan to partner with other science media or journalism organizations to and others are partnering directly with school districts.

How will each hub raise funds and sustain the project?

Resources, primarily money, arose as the most common and greatest barrier to progress for the *QUEST* project. One of the key outcomes for this grant was that each hub would work to pursue regional funding opportunities to pilot *QUEST*. This task came in the midst of a climate of change across public media organizations and funding institutions, due both to current economic realities

and shifting priorities. Both state- and community-supported public media organizations have experienced reductions in fundraising and budgets, and there is more competition for shrinking funding pools.

Staff members at several hubs discussed the importance of education as a source of funding, something media production organizations may not be accustomed to thinking about:

What I'm saying is that in the funding environment, it's flipped, and education is the way in and that's where the money's coming from. ... But that mindset is something that I still to this day don't think there are a lot of people who are the heads of public media entities who really understand that. Production is actually secondary. –WHYY team leader

In the United States right now there's one sustainable source and that's primarily state and a little bit federal, and it's educational funding. –NET staff member

Members of the KQED QUEST team expressed concern that some of the hubs were not experienced in the type of fundraising and development required for QUEST. With respect to grant-writing based on education, as opposed to production, one individual described the differences in this manner:

One of the main deliverables that the hubs will actually make is rich media educational assets. I certainly wouldn't say four years ago that anybody would have said, oh, that's our number one deliverable of a regional project like this, it's rich media educational assets that are primarily used online for educators. They'd say wow, that's a departure from traditionally TV and radio company. ... Most TV stations or radio stations would be familiar with writing a grant to McArthur for a television documentary. Fewer would be familiar with writing a grant for educational thing or particular to a funder that doesn't fund the broadcast traditionally so they don't really know of them or how to position them. Writing a grant for work that's very multi media that's after a funder who is really interested in educational outcomes as opposed to you're making a television documentary, those metrics and the deliverables, you spend a lot of time in those things talking about the treatment of the show and this many audiences on PBS nationwide and this website is going to reach this many people. You probably have no experience on writing for this is the literature review write up on the educational foundations of the leading research about how children learn science.

Beyond the changing external climate for funding and the new skills needed to pursue education-oriented opportunities, the hubs are also working to become more strategic about their fundraising and the projects they pursue. One WHYY staff member described their approach as follows:

But over the past three or four years or so we are trying hard to kind of set or agenda of what we're doing and then find things that are complementary, that work together, that we're not just starting something up new because there was funding available.

This attitude represents a shift away from a problem prevalent across public media organizations. They often begin a project in a certain area or topic because funding was made available. When that funding source ends, the station must move on to another project, the next topic area. This approach makes it quite difficult for an organization to sustain a project such as QUEST:

One of Quest's biggest challenges is endemic of all the way we work or have to work as project funding versus operational funding. We have lots of science teams and news is very important. But it's hard to sustain that amount of funding for a topic area for an extended period of time particularly because funders of that tend to want to start but not maintain things.

Each of the hubs, including KQED, hopes that this innovative project will help them find new funding sources and a sustainable development model. One key piece of that hope is the content collaborative.

What roles will each of the hubs and KQED play in the content collaborative?

Collectively, the hubs have laid the groundwork to pilot the content collaborative, an initiative that brings to the fore a set of editorial and technical challenges, as well as opportunities to expand content offerings and work together in a new way. Historically, public media stations work independently from one another:

If you look at the history of public television, a lot of people criticize its current structure because we're kind of the old studio system, there's only three or four stations that do the mother load of the programming. One of the things that's exciting about this we haven't even talked about is I like the idea of spreading this out and sharing content from San Francisco and the other hubs. –NET senior manager

So, while a number of stations may contribute content to PBS's *Nova* television series, for instance, individual stations do not share resources or content, a model that many organizations within the system are questioning:

That is becoming in public broadcasting a huge issue of how do we share content. Do we have to go through NPR or PBS to share what we're doing? The approach that KQED is taking is moving that direction is, "No, we don't. There can be regional hubs of a project like this, and if we're producing a piece on a pharmaceutical industry well somebody in Des Moines can pick that up too if they want to." So I think that they have fought through a lot of those pieces of how do you share the content. Maybe they don't have the full answer, but they're definitely moving in the right direction, and the direction they're moving in is the same one I think a lot of people in this industry are moving in. –WHYY senior manager

The greatest challenge to this new approach revolves around editorial and technical issues. When a few stations contribute to a PBS series like *NOVA*, they all work within that program's established protocols for content, style and format. For this project, the hubs will need to work together to shape those protocols across multiple platforms and to secure funding to develop the pilot content in Year 2. Furthermore, the hubs will have to decide who will have editorial control, how funding will be distributed, and whether they will develop a national presence for *QUEST* or share content to be distributed locally in each region.

These challenges once again raise the question of leadership. As the hubs discussed the collaborative and sought funds to create pilot content in Year 2, KQED took on the role of editorial lead for the collaborative. Team members at some of the hubs expressed some concern regarding the KQED team's ability to take on that role, while still producing their local *QUEST* series. To meet this challenge, KQED's *QUEST* staff worked over the summer to define the scope of the

collaborative pilot and to adjust their work processes and schedules to accommodate their new roles.

Some stations have also expressed concern over how each hub will contribute, particularly given their widely diverse resources. Specifically, team members wanted to know that there was a process of accountability and level of involvement:

There's always concern about how that money is divided up. Everybody wants it. Everybody needs it. But not everybody is equal. –NET team member

There's a lot of different people and a lot of different players but there's also this sort of lead by example and dance with the ones that know how to dance while you're teaching the others how to dance. –WVIZ team leader

Again, through the process of applying for funding for the collaborative, KQED and the hubs worked out a system that addresses these issues. Each hub can choose to contribute a range of “assets,” from full television segments to educator guides. The cost to produce each type of asset has been priced out, and hubs will receive funds based on their commitment. This level of concrete information from KQED has helped the hubs address the question of “What is QUEST?”:

It really started making sense because before that it was very kind of nebulous. ... But I think with this then when they got back to us and they were much clearer it was much easier to see this is what it could be, this is how it could, again, tie together things we're doing now, which is what we like to do. –WHYY staff member

The final challenge for the collaborative pilot will be balancing QUEST's focus on local issues while creating content that can appeal to a national audience:

I think the very best public media companies will have a robust kind of local content that really connects with local issues and local institutions. And KQED does that very well. The other really successful public media companies do that well. But it's going to be important going forward for all public media companies to do that. –KCTS senior manager

All of the hubs are aware of this issue, and most feel that this challenge will be met as they plan to adapt the QUEST model within their organizations. While QUEST presents all of the hubs with a similar set of challenges and opportunities, each one must decide how it will answer the critical questions. The next section presents an overview of the progress each hub has made in Year 1, contextualized by the factors unique to each.

Year 1 Progress by Hub

For all of the QUEST regional hubs, the first year of the project was one of planning and wrestling with the issues presented in the prior section. As part of this planning process, researchers asked the hubs to describe what success would look like at the end of Year 1. The QUEST Hubs' Year 1 Progress Overview table in the Appendix offers a snapshot of the goals that were planned and achieved (or not) by each hub. Here, the authors contextualize those achievements with the stations' overall goals and the barriers they have faced.

NET – Nebraska

Year 1 Highlights:

- Obtained funding from local foundation for Year 2 pilot
- Set up partnership with Omaha and Lincoln schools for pilot
- Initial plan for pilot and cross-platform team

In June 2010, REA staff visited NET and interviewed a wide variety of staff both directly and indirectly involved with *QUEST*, including: general management, research, development, production, and education teams, and four potential community partners in Lincoln and Omaha.

During station interviews, the critical question, “What is *QUEST*?” proved to be a dominant theme. Interpretational variations - in regards to what *QUEST* is and what it ought to be - existed within and between various departments, staff members, and management. The resulting conversations, while revealing general enthusiasm and excitement toward *QUEST*'s potential, shed light on organization-wide concerns and potential challenges.

NET is looking to adapt a truly cross platform production approach through which individual reporters and producers will learn to create content for video, audio, and interactive. They are already making inroads in this area with news, and they see *QUEST* as an opportunity to complement and further those activities. Among the staff, researchers noted a mix of excitement, nerves and some resistance to change.

NET has a history of producing educational content with a “big E.” Staff members varied in their desire to focus primarily on formal educational contexts versus more informal science content. Ultimately, the project will include elements of each. Still, a senior manager stressed the importance of formal education as a key to local funding. Indeed, the organization funding the pilot wants formal education to be the centerpiece of the project. This senior manager feels that they will need to demonstrate changes in test scores to sustain the project; however, that goal can be quite difficult to achieve through media content.

NET has excellent opportunities for partnerships through existing relationships, including the school districts, and they have introduced *QUEST* to those organizations. Still, NET team members are cautious about committing to or rolling out a defined *QUEST* project that is potentially unsustainable:

We don't want an orphan grant that just turns into a new little project and then all of a sudden at the end of it all this was a nice experiment. –NET team leader

Consequently, they have not yet pushed for visibility of the project in the community or fully formed an internal *QUEST* team. One potential partner expressed frustration with the slowness of the project, but the NET team is dealing with a common issue across all public broadcasting stations – what happens to a series or project when funding runs out? They want to see a path to continue the project beyond the pilot, which will launch in Spring 2011.

Year 1 Highlights:

- Buy-in from senior management to pursue *QUEST*
- Multi-organization production team created with 20% time to *QUEST* and dedicated workspace
- Addition of Instructional Communication Systems team members to provide Interactive expertise

In September 2010, researchers conducted final phone interviews with the Wisconsin *QUEST* leadership and production teams. This group is in a truly unique situation among the hubs. The members of these teams represent four separate organizations: Wisconsin Public Television (WPT), Wisconsin Public Radio (WPR), Educational Communications Board (ECB), and the newest partner, Instructional Communication Systems (ICS). All of these organizations are part of the University of Wisconsin Extension; however, they do not share organizational structures or even physical spaces. This arrangement magnified the challenges faced by all of the hubs, such as breaking down silos and shifting cultures.

The Wisconsin team's main goal for Year 1 was to put together a team of staff from each organization that was dedicated to *QUEST* 20% of their work time and to find that team a workspace. This production team began meeting in August and is putting together a proposal for the pilot. One major weakness for this hub has been their online presence and interactive expertise. To address this issue, the group has added team members from ICS, who will provide technical support and build the project's Web presence. They have received a small grant to produce pilot content and an initial website.

At least one team member expressed a desire to develop a single Wisconsin Public Media web portal in the future. This desire speaks to the heart of Wisconsin's primary goal for the *QUEST* project:

It would be great if it was seen as a successful collaboration and could actually serve as a model for more collaboration bringing WPT, WPR, ECB, UW Extension closer together. –WI team member

All of the individuals working on this project would like to see their organizations learn to collaborate and work more closely with one another to reduce redundancy and move toward 21st Century production.

Because the team is made up of separate organizations, the production team also has three leaders – the leadership team members rotate managing group meetings, and each maintains leadership for one production team member. The leadership team member from WPT is acting as the head of the project, temporarily, but they would like to hire a project coordinator. This hub has not reached out to external partners, yet, although they have some ideas. Their early focus has had to be on forming their internal partnership.

The team hopes that their pilot content will allow them to approach potential funders and external partners to continue and expand the project. Ultimately, they want *QUEST* to become an ongoing series that builds their reputation as a quality science resource: *It would be awesome if we were recognized as a place to go for environmental issues or science in Wisconsin.*

UNC-TV – North Carolina

Year 1 Highlights:

- Planet Earth pilot: presented *QUEST* to community and partnered with North Carolina Museum of Natural Sciences & captured pilot content material
- Launched UNC TV *QUEST* Website and Facebook page
- Convened group of partners to discuss opportunities; using Web and Facebook for cross-promotion
- Developed comprehensive proposal for Year 2 content-collaborative production (pending funding)

REA staff conducted final phone interviews with the UNC TV *QUEST* team and senior management and representatives from community partners in September 2010. Despite a lack of resources, the team members from this hub have accomplished a great deal with *QUEST*, largely due to their belief in and commitment to the *QUEST* model:

What has happened with QUEST at UNC TV has happened because of the dedication and the commitment of the people in this room, excluding myself because I have not been hands on. But what they have accomplished they have accomplished because of their belief in the model and the belief that it is something good for UNC TV. It's almost like it's been a little guerilla group. I'm impressed with what they have accomplished with very, very few resources. –UNC TV senior manager

Through *QUEST*, these individuals are examining the way they produce content and interact with partners and the community at large:

QUEST has become synonymous with this kind of multimedia model.... So QUEST is already infused in at least the projects that we're working on now if we're trying to get money for a community engagement or social media or social engagement or crowd sourcing or anything like that QUEST is kind of the model we're using. –UNC TV team member

Unlike many of the other hubs, the UNC TV team has infused the philosophy of *QUEST* into their other work and, in turn, has used funded projects to support and promote *QUEST*. Consequently, they have made great strides in developing a UNC TV *QUEST* presence through a Website, Facebook and other social media as well as through appearances at local events. They have reached out to and convened a diverse group of community partners. While these relationships have not been formalized, the partners share a vision of UNC TV *QUEST* as a portal for science content, education and activities:

I think if we can help break down the silos and bring visibility and awareness to the different science efforts in the state and I think that alone I hope QUEST is more than this but I think that alone would be a tremendous public service for this to be sort of a one stop shop for science and what's going on in this state. –UNC TV team member

This hub is also expanding the notion of what it means to be a QUEST partner by working with science journalism organizations, which gives each organization the opportunity to increase the amount and reach of their content:

I know there's a lot of content on UNC TV's website already but in terms of it being aggregated and advertised as and billed as a center for information about science for school kids and others interested in the topic I think that would be a huge advantage. More people would get to see what it is we do and we hopefully would be able to cross-pollinate one another's efforts. –UNC TV partner

Working with a science journalism program at UNC also expands the reach of QUEST education into a new realm, training future multi-media science journalists.

KCTS – Seattle

Year 1 Highlights:

- Science literacy confirmed as part of station's strategic plan
- Buy-in from senior management
- Developing plan for pilot to present to senior management

In July 2010, REA staff conducted two phone interviews with the KCTS hub team and a senior manager. When these calls took place, the Seattle station had completed data collection for an intensive strategic planning process. The outcomes of that process included a decision to focus on four content areas, one of which was science literacy. The hub team and senior management agreed that QUEST would contribute to the science literacy area through the development of local STEM content and partnerships.

For the KCTS team, one of the most valuable aspects of participating in this project was the opportunity to learn about the systems KQED had put in place to manage their cross-platform production:

I think one of the aspects of the KQED QUEST programming that had significant impact on the people here was in the whole areas of series management processes, the way that ideas are generated, reviewed, tracked, the technology that is used to do that, the editorial process around selecting content, having those defined series management processes are really a very important part of what we're doing here. – KCTS staff member

While they had broken down barriers between departments prior to the start of this project, they are still learning to work and think in a multi-media and cross-platform manner. QUEST and the resources they receive from KQED will help them accomplish this goal.

The KCTS team has taken a fairly cautious approach to the project, so far. One key barrier they face across the organization is a fear of over-promising – an issue for many of the hubs made particularly salient in Seattle due to a recent financial crisis. This experience has left the station with what the *QUEST* team leader described as a *leftover culture of scarcity*. Thus, the team is moving slowly but steadily toward their vision of *QUEST* as a locally-produced multi-media series with a dedicated audience.

A local science series will also help the station meet their development goals. As with most of the community license hubs, KCTS's fundraising model has relied primarily on pledge drives. And as with other stations in the project, KCTS senior management has come to realize that that model is not sustainable. They feel they will have more long-term success with major and planned giving. For the station to attract such funding sources, they *have to be able to demonstrate impact and valued programming on a local level*.

The Seattle team also wants to reach out to educators and community partners with this project. KCTS has a track record of working with the early learning and pre-K community. With *QUEST*, they would like to continue that work but also expand into K-12 (efforts they discontinued in 2003 during their financial difficulties). While the hub team has not formally approach community science partners, they are in a position to take advantage of a group that is already convening. A group of six science organizations in the region have already formed a partnership for science education and outreach, and they are in the process of hiring a coordinator. KCTS has been talking with this group, and the members are quite interested in *QUEST*.

WCPN/WVIZ/Ideastream – Cleveland

Year 1 Highlights:

- Merged Education department into one unit (from 3)
- Made progress in integrating Education into cross-platform work
- Hosted *Ohio Science Education Summit* - introducing educators to Ohio's new science standards for K-12 students

In August 2010, REA staff traveled to Cleveland to meet with members of the *QUEST* team, staff from the production, education and interactive departments, and potential community partners. Like NET, Cleveland is in a strong position to participate in *QUEST* as a partnership hub. Approximately 10 years ago, WCPN/WVIZ/Ideastream was formed when separate public television and radio stations merged. Since then, the television and radio staff have learned to work together cross-platform:

Nobody is very invested in having the blocks there at all anymore. I think there are other things that are still propping up some semblance of a wall which is cultural, different priorities, even some language difficulties, challenges but not intent anymore. –Cleveland team leader

The educational arm of WCPN/WVIZ/Ideastream, which unit recently made up three distinct units, and the interactive team have yet to be fully incorporated into Cleveland's cross platform set up. The *QUEST* project, particularly KQED's site visit, has helped that process because it highlighted the roles that education and interactive staff play in San Francisco.

Because of this status, the Cleveland team leader and senior management have been less interested in the regional hub project's Year 1 activities and have been somewhat impatient to develop the content collaborative. This interest stems from the belief that the key to local fundraising for their station lies in national content distribution:

...why we're enthusiastic about QUEST, as opposed to doing it ourselves, is the key to raising serious money in this market is the idea of exporting the content beyond this. –Cleveland team leader

Despite this narrow focus in the short term, Cleveland's QUEST team leader envisions a robust QUEST project:

I'd love to see us halfway through a two and a half, three year implementation ramp up of a project that shared content and materials for teachers and general audience across, at least, the QUEST stations if not further and that produced a gross revenue for this organization of no less than a million bucks. I'd like to be at least halfway through that project, ramp up, within eighteen months.

This hub is more than ready to see leadership from KQED on the next steps of the project, but they will also need to provide strong leadership from within to achieve their goals. One potential community partner honed in on this key element:

The next step if there is a next step has to be followed up relatively soon with some concrete action. ... I think you need a leader [at WVIZ] who has bought into it and will really push it and knows the community as well, knows the people, knows both the informal science education people, the school people and the public understanding what they do and a connection here and do something.

WHYY – Philadelphia

Year 1 Highlights:

- Pilot for Public Media Commons planned – will implement with a few partners
- Reporters beginning to work cross-platform
- Developing plan for pilot content with Health and Science reporters and News Director

In September 2010, REA staff traveled to Philadelphia to meet with the QUEST team, reporters, senior managers, and the head of the Public Media Commons (PMC), a new community production and education facility:

We have three after school programs. We have an after school documentary workshop and after school radio story time workshop. We also have, so in addition to our student classes we do teacher training with a series of professional development courses, and then we also have courses for just every day community members, adult learners and then courses for senior citizens, as well. Young journalists summer camps, too. –WHYY staff member

Education, and specifically the PMC, will play a central role in WHYY's QUEST project. For the pilot, they will partner with a small set of science educators and science organizations to create

environmental media projects, produced by students/learners in the PMC. These projects may be featured on the Web and – if they are of high enough quality – even aired on WHYY.

Outside of this education initiative, *QUEST* will incorporate reporters and producers from the station's Health and Science desk. This approach will require the education staff to work more closely with the production staff than has happened to date, and some tensions have emerged:

... I don't think that you can change the mindset at different levels to really make that happen in the same way that was able to happen with KQED. I just think it's a unique situation. I don't really see that being the kind of situation that we have here. –WHYY team leader

Among the education and reporting leadership, the education leader feels that they do not have a seat at the table, while their news lead is concerned that education will dictate journalism. These issues emerged and were dealt with at KQED during the early stages of *QUEST*, but it may take some leadership from senior management to resolve the issues. At the same time, reporters and interactive staff from the Health and Science desk do want to work with education and do want to tell some stories from a less news and more “why does this matter to you” perspective.

Among the production arms, the station has already made progress toward cross platform production and a focus on interactive, spearheaded by the launch of an online news initiative that launches in November. This transition has presented some challenges, but

We've made a huge amount of progress with regards to this issue, this idea of “I work in television” or “I work in radio.” Are there still pockets here and there, individuals here and there, that are hanging on to those sort of notions? Absolutely. Three years ago, I may have given you a different answer that I give you now, but I think if we haven't totally broken down those silos we're very close. –WHYY staff member

Now, that said, historically, WHYY investment, if you will, in online has taken, I don't think surprisingly but sort of backseat to our core business which over the years has been radio and television, what we're licensed to do. However, recently, with changes in the media environment and stuff like that, we're moving in new directions, specifically online. –WHYY staff member

Across all platforms and staff levels, researchers found a common desire for *QUEST* to further this push toward multi-media production and allow them to reach new audiences:

What I kind of envision is both kind of a change in the way that we work as a team. Hopefully we're much closer and a more integrated team of people rather than individuals so that we are much more efficient at getting these types of projects done working multimedia into some of these stories. And also a body of work that we can look back on that would be a nice well-rounded portfolio of good science content that we can use in a lot of different ways. –WHYY team member

Moreover, one staff member pointed out that the program's environmental focus would allow WHYY to approach new funding sources:

I think that there are a lot of funders locally who have a keen interest in environmental issues that we haven't necessarily been able to find something that fits for them because we haven't

been doing anything. ... So I think that being able to take that concept and going to local funders and saying building on this idea here's this project that we're part of that has a direct impact on the local audience, but also has potential for visibility and presence in a national specter as well.

KQED – San Francisco

Year 1 Highlights:

- Presented and shared *QUEST* model and materials with hubs via webinars, the symposium and site visits
- Prepared and submitted proposal for content collaborative production funding
- Developed plan to lead content collaborative in Year 2

Researchers conducted a site visit at KQED in August 2010, interviewing a range of *QUEST* staff members to get their perspective on the hub journey and how the project has changed their team. KQED's *QUEST* team had its own set of challenges and new opportunities to address as a result of this project. While they were not dealing with how to work cross-platform or defining their *QUEST* series, they did find themselves taking on new roles and examining their own work processes and activities in detail. Further, they have discovered that, despite what they have offered in terms of their model and experiences, each regional organization must find its own path.

Reflecting on this first year of the project, KQED's team leader commented that the hubs have made a great deal of progress, even more than she anticipated. At the same time, this process has been slower than she anticipated. Given the resources and lessons learned the KQED *QUEST* staff provided, she hoped the hubs would experience fewer struggles. As it turns out, each organization is facing shifts in culture and practice that do not come easily. Still, the resources and *QUEST* model have aided that process:

That's part of the great thing about the KQED process is that they built these things in already because they've gone through them. It can help accelerate some of what we're doing. –NET team leader

Several members of the KQED team see the challenges faced within the hubs and among the collaborative as quite similar to the process they went through during the creation of *QUEST*:

I know that's where our hub people are, a lot of them, within their stations. It's just so hard and it takes time. ... I saw a little bit of that with some of the people at the symposium and just like these people who just really, for good reason, were pretty skeptical that their institutions could actually manage to make some headway in this. Not that they were completely doubtful but it was just like it's overwhelming. ... I would like to be a fly on the wall of some conversations a year from now where they're saying wow I remember a year ago or a year and a half ago when we were in that symposium and it didn't seem possible. –KQED team member

With respect to a key tension that has emerged in the project – the question of leadership – KQED staff sees the same process they went through with their community partners. In both cases, there

have been instances of miscommunication and false starts. In the early days, the Bay Area partners did not know what *QUEST* was, if it would ever happen, and what was in it for them. Similar questions have been raised by some of the hub staff:

It's hard to get them to say hey let's devote a whole lot of new people and money to something that's in another city that's based in another city where we don't yet have something we can hold and touch and see. –KQED team member

With the community partners, they worked through these issues, and the organizations that stuck it out and have created a strong, mutually beneficial relationship.

Several members of KQED's team were surprised at the extent to which the hub teams were looking to them to provide direction on what *QUEST* would become for each regional. At this point, the KQED leadership wants to see the hub teams take ownership of the *QUEST* project within their own organizations:

I think it would be great to get back from each station a plan of what this looks like, what they think this looks like at their own station and start thinking about what they want to commit to in terms of those deliverables so that we can really kind of get our head around what we're working with. ... And I would like to know, on the list of deliverables, sort of where they feel like their interest and resources are at the moment. –KQED team member

At the same time, KQED will need to take the reins for the content collaborative:

*It's been clearer and clearer that the project needs a strong editorial voice or a management structure and that should come out of KQED. I think that's the right thing to do. *QUEST* workflow and its processes were born here and while they necessarily aren't going to be improved here I think it's going to be a collaborative process. ... I think that the process has just resulted in maybe a collaborative understanding that someone needs to be in a position that says okay let ideas, whether they're editorial, educational or logistical, bubble to the top in a democratic process but in the end there needs to be governance. So I guess I was not surprised that we got to this point but I think it speaks well of all of the players involved that the decision hasn't been one of mandate. It's been a shared understanding. –KQED team member*

This new and more intensive role in the collaborative required KQED's team to spend time planning and adjusting their work processes:

The time during which we are continuing to produce our weekly series that's overlapping simultaneously with establishing all of these workflow systems and communications with the hubs. So this upcoming season is going to be really challenging for us because I'm not exactly sure how that's going to happen. –KQED team member

As one team member pointed out, however, this challenge also brings new opportunities for the staff to grow: *I do think it's breathed new life into people to be able to teach other people about it and be able to talk to people nationally about it and all of those things.*

KQED's team has been able to work through this transition and face these challenges because of their strong internal leadership that guides the staff through the "hard spaces." To be successful in this project, each hub will have to find that type of leadership and persistence, as well:

What will be highlighted in the collaborative process with these other entities, especially because they're removed from KQED's offices, will be the strength of the personnel and the personalities involved. –KQED team member

The KQED team feels that, if they are able to push through the barriers and bring the collaborative to life, all parties will benefit:

It's really cool to be able to offer to the hub partners the knowledge that we've gained over the last four years. I look back on the first year and think oh my God, if we had that it would have been so much easier. And I really feel like they have a lot to offer to us as well and helping us to refine our systems and our workflow and perhaps break out of some of the patterns that are not as productive as they could be within our systems, sort of forcing our hands at things. –KQED team member

We can play a really vital role in supporting innovation, seeing public media continue to develop, advance its mission standing commitment to audiences whether they're local, regional or national. For KQED to embrace and fully understand the impact that QUEST has had and to share that as best we can and as smartly as we can and as humbly as we can know, of course, that again innovation is happening everywhere. People are building on what we've learned in QUEST and improving upon it in ways that we don't have potential to do. – KQED team member

The Hubs Collaborative Journey, So Far

The interactive and education platforms have emerged as key growth areas as stations move through the stages of cross-platform integration:

Although they all intuitively understand that the web is important to varying degrees, there is still a sense of first we have to quote unquote - and this term was used in more than one place, we have to 'feed the beast' and then do web stuff. It hasn't really been, again, this took a long process over the last three years for us to make it integrated and make the commitment to it. –KQED team member

The site visits by KQED staff paved the way for conversations and excitement about bringing these platforms to the table:

Particularly, I think, in the education and web areas...I think it feels, it can feel really sort of like this new world is opening up for the education and web teams and it can, I think, sometimes people's fear is that for television and radio it's going to be a struggle. –KQED team member

Interactive and education staff at multiple hubs confirmed this observation by a KQED team member. There have been struggles to integrate these platforms, something KQED experienced early in the process of creating QUEST. Looking back on this process one content producer from KQED commented:

When you really realize, when the light goes on and you realize that we have nothing to be threatened about by working together and so much to gain and so much to offer and it really expands your way of thinking about media creation. It's exciting; it's empowering.

The cross-platform model offered by *QUEST* has the ability to offer new ways of thinking and working that, ultimately, can lead to new ways of engaging audiences with STEM content:

It's one thing to do a single grant project that you have to either work collaboratively with a different unit or produce something online as opposed to air. It's potentially a deeper more transformative experience to really try to change the way people work all of the time around projects. –KQED staff member

I think that we recognize that and it's online where an immersive experience is possible where it's no longer simply about deficit but about interaction, question and answer dialogue, two way or multi way communication between the producers of the science, the consumers of the science, educators, youth. –KQED team member

As they move toward this type of 21st Century interaction, the *QUEST* team members and staff at each regional hub have engaged in a dialogue around a series of critical questions. Each hub began this process from a different place, and each will most adapt the *QUEST* model in unique ways. The participants have arrived at a critical juncture on this journey. The hub teams must translate Year 1's planning and discussion into concrete action, which will require leadership and resources.

Moving forward, each hub's leadership will have to decide whether it is fully committed to developing *QUEST*, and if so, how it will grow the project. KQED's team will need to continue to provide direction and leadership with clear next steps and deadlines, at least with respect to the content collaborative. If these steps are taken, all participants have the potential to transform the way they produce and distribute STEM media and, consequently, the way public media organizations collaborate and educate the public.

QUEST Hubs' Year 1 Progress Overview

<p>Grey=not complete Black=complete</p>	<p><i>Adapt QUEST organizational and cross-platform production model</i></p>	<p><i>Develop funding and production plans for Y2</i></p>	<p><i>Develop regional partnerships and collaborations to develop and disseminate STEM content to a broad audience</i></p>	<p><i>Develop and disseminate pilot content materials for regional audiences</i></p>	<p><i>Develop informal STEM content materials, outreach and education</i></p>
<p>Seattle</p>	<ul style="list-style-type: none"> • Confirmation to move fwd from mgmt • Wish: project mgr hired 	<ul style="list-style-type: none"> • Outcome of strategic planning & plan to use existing resources – science literacy is 1 of 4 main content areas • Planning grant • FY11 budgets support project 	<ul style="list-style-type: none"> • Commitment of support from initial group of community partners – holding off until project is established; talking informally 	<ul style="list-style-type: none"> • Plan based on strategic planning outcomes – August presentation to sr. mgmt. postponed 	<ul style="list-style-type: none"> • Plan based on strategic planning outcomes – will move forward with funding
<p>North Carolina</p>	<ul style="list-style-type: none"> • Use pilot project to test & demonstrate cross-platform • Buy-in from upper mgmt 	<ul style="list-style-type: none"> • Prod plan for collaborative • Funding sources identified/pursued (NC STEM Committee) 	<ul style="list-style-type: none"> • Pilot partnership with museum – Planet Earth events • Other partners identified • QUEST at Public Media Camp 	<ul style="list-style-type: none"> • Pilot content on sustainability/ Planet Earth 	<ul style="list-style-type: none"> • Potential for hub/portal to organize STEM content and ed materials produced by local orgs
<p>Cleveland</p>	<ul style="list-style-type: none"> • Already work cross-platform – progress in incorporating Ed 	<ul style="list-style-type: none"> • Production plan for Y2 • Funding identified/obtained – preparing proposal 	<ul style="list-style-type: none"> • Formal partnerships established – informal conversations 	<ul style="list-style-type: none"> • Mobile app devel based on existing content – in planning 	<ul style="list-style-type: none"> • Ohio Science Summit

Grey=not complete Black=complete	<i>Adapt QUEST organizational and cross-platform production model</i>	<i>Develop funding and production plans for Y2</i>	<i>Develop regional partnerships and collaborations to develop and disseminate STEM content to a broad audience</i>	<i>Develop and disseminate pilot content materials for regional audiences</i>	<i>Develop informal STEM content materials, outreach and education</i>
Nebraska	<ul style="list-style-type: none"> • Start of cross-platform with pilot 	<ul style="list-style-type: none"> • Funding in place for Y2 (received grant from local foundation) • 50% devel staff member hired – in progress • Plan Spring pilot – in progress 	<ul style="list-style-type: none"> • Pilot partners established • Story ideas with potential partners 	<ul style="list-style-type: none"> • 30 min pilot on prairies (for Nov)-in progress (Pilot pushed to spring) 	<ul style="list-style-type: none"> • Interactive ed piece to go with TV pilot • 50% Ed/outreach staff member hired – in progress
Philadelphia	<ul style="list-style-type: none"> • Reporters beginning to work cross-platform • Buy-in from News Dir. – in progress • Multi-media enviro reporter hired 	<ul style="list-style-type: none"> • List of story & web ideas for Y2 – in progress 	<ul style="list-style-type: none"> • Formal partnerships established – in progress • Regular partner meetings 	<ul style="list-style-type: none"> • Environmental Ed pilot – in planning 	<ul style="list-style-type: none"> • Pilot in conjunction with Learning Lab – in progress
Wisconsin	<ul style="list-style-type: none"> • Buy in from mgmt for pilot & y2 • Initial team w/20% time dedicated; space & equipment 	<ul style="list-style-type: none"> • Pilot content & ex to take to funders & partners – in planning 	<ul style="list-style-type: none"> • Pursue based on pilot – Initial list together for y2 	<ul style="list-style-type: none"> • Team producing initial content – in planning • Website developed – in planning 	<ul style="list-style-type: none"> • Part of initial content • Plans for Y2