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RAD-SHARE SITE DEVELOPMENT STATEMENT OF WORK



Project Name	RAD-SHARE Site
Project Budget	\$ 31,175
Client Account	X-XXXX-XX
SOW prepared	Megan R. Bell, megan_bell@unc.edu
File Name	ITSTLI_RADSHARE_SOW_v4.docx
Created Date	06.01.10
Last Revised	07.02.10

EXECUTIVE SUMMARY

Information Technology Services Teaching and Learning Interactive (ITS-TLI) is dedicated to the design, development, and delivery of media products and services that meet Carolina's instructional goals. As part of this mission, ITS-TLI seeks to support the efforts of UNC schools and departments as they assess, design, and develop media materials and solutions.

This Statement of Work is in response to the approved RSNA grant application for **RAD-SHARE** (Radiology See, Hear and Respond) education collaborative, Phase I. As the Principal Investigators described it in their RSNA grant application:

*"...The aim of RAD-SHARE, (Radiology: See, Hear And Respond Education), is **to create a robust, novel, and unique interactive online learning community that will serve as a network to foster knowledge sharing among training institutions** for mutual benefit...The objectives of RAD-SHARE will be accomplished through the creation of lecture modules called "radactics" which will be authored by various contributors from different programs who share the vision of the project...The pilot phase, initial learning experience of residents from participating institutions will be evaluated objectively. According to a pre-defined format, a lecture module in uroradiology, (the initial representative example) will be created and uploaded onto the portal. To assess learning among residents, standardized tests will be administered following completion of the module. Subjective feedback regarding ease of use and functionality will be obtained from module contributors and learners, respectively.*

ITS-TLI will serve as the Technical Lead for Phase I. In this role, ITS-TLI will design and develop the public RAD-SHARE site, will incorporate third party capture software into the RAD-SHARE site, and will create the RAD-SHARE admin tool for management of the site, site content, and site functionality. For the Phase I of the RAD-SHARE collaborative, ITS-TLI will provide Project Management and media development services, including:

- Project Management (including communications, documentation, task scheduling)
- Media Web development (including Web tool programming, Joomla programming)
- Instructional Design (including copy writing, instructions, on screen text)
- Graphic Design (including interface designs, lecture slide templates)
- Quality Assurance (including internal and external review of materials)

The RAD-SHARE collaborative Principal Investigators (PI), Dr.'s Julia Fielding and Alfred Llave, serve as the point of contact for the ITS Teaching and Learning Interactive project team. RAD-SHARE PIs will fulfill these obligations as part of the project collaboration with ITS-TLI:

- Provide copy content for all external site pages within the new RAD-SHARE Website.
- Establish and manage service agreement with external vendor for any hosted capture solution (such as Panopto or Adobe Presenter)
- Establish completed site hosting service agreement with external vendor.
- Permission granted to ITS-TLI to use project materials, experiences, and collateral in publishing, presentation and other outreach efforts.
- Payment as described in this Statement of Work

The project, with a maximum budget of \$ 31,375, begins with the signed approval of this Statement of Work (targeted as July 2010) and concludes with the migration of finished site files to the designated RAD-SHARE host service provider (projected to be September 2011).

Meeting the Challenges of
Radiology Resident Education in
the 21st Century: Redefining
the Radiology
Classroom through
RAD-SHARE,
Radiology (See, Hear And
Respond Education) –
A Collaborative Pilot Endeavor

*RSNA Grant Application,
May 2010*

PROPOSED MEDIA SOLUTION

The proposed RAD-SHARE education collaborative product is an online site incorporating multiple content sources, lecture capture technologies, and targeted user functionality.

The RAD-SHARE site will be developed using **Joomla** (<http://www.joomla.org/about-joomla.html>), an **open source Content Development System (CMS)** for the custom delivery of Web content and applications. As a CMS, the RAD-SHARE site allows for administrators, such as the RAD-SHARE PIs to easily change content copy, page menu titles, and site page organization.



Additionally, Joomla includes a suite of community tools, part of the **Community Builder suite**. As described by the publishers, the Community Builder suite..."extends the Joomla! user management system... Key features: enhanced registration workflows, user lists, admin defined tabs and user profiles, image upload, integration with other components, like PMS, Newsletter, Forum, Galleries. CB has many CB plugins... Profile Gallery, Profile Blog, Profile Guestbook, Paid Subscriptions Membership management, and more." (edited excerpt from <http://extensions.joomla.org/extensions/groupware/communities/210> accessed 06.14.10)



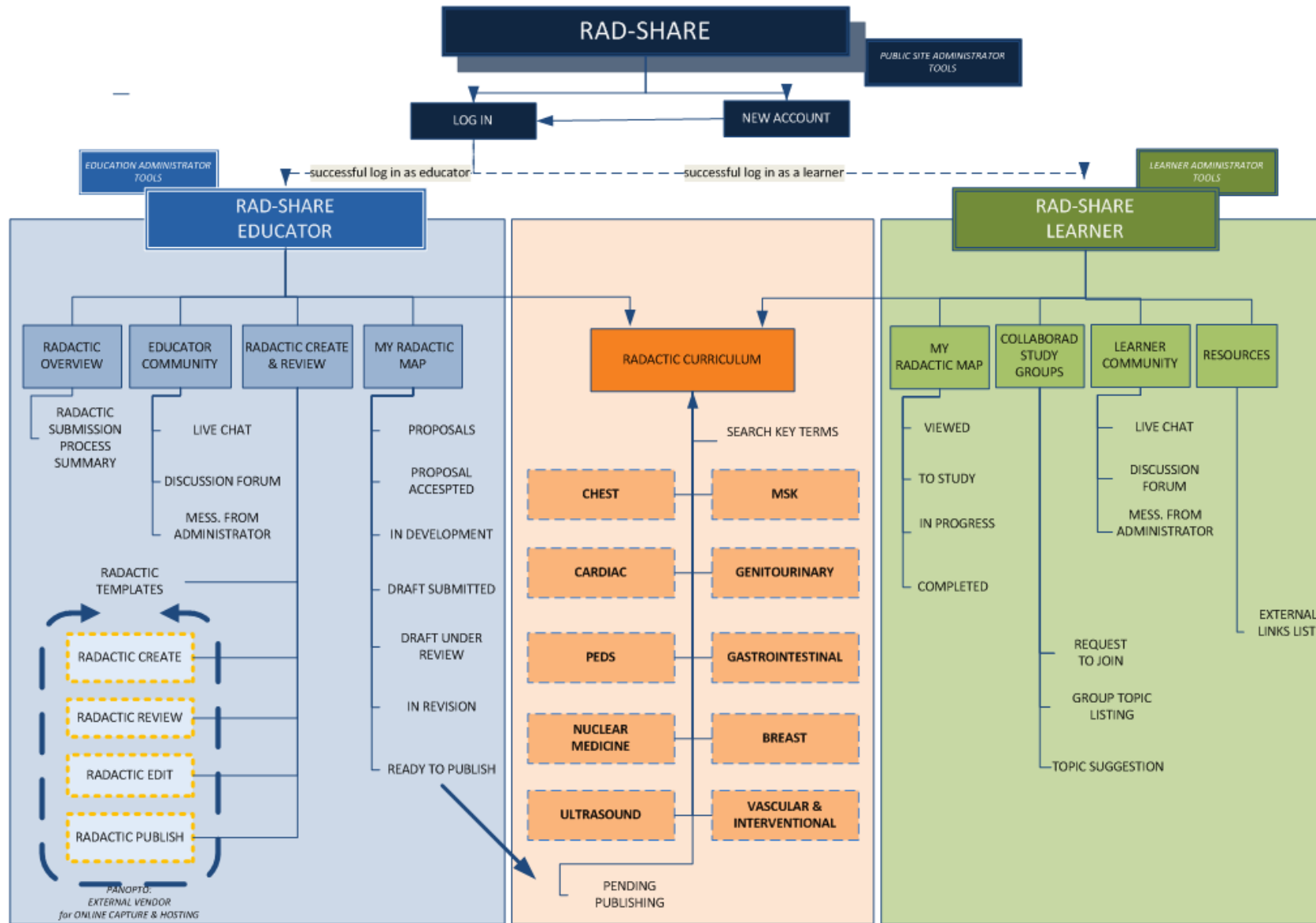
The RAD-SHARE education collaborative Web site has general technical requirements including:

- Joomla portions of the site (all site pages and applications excluding the lecture capture tools) require hosting on an Apache MySQL server running PHP.
- Joomla will need to be installed on the final host server (part of the migration of the final site from ITS-TLI development server to RAD-SHARE's selected host server provider).
- Joomla admin will allow those on the approved Admin users list to change and update site copy with authenticated user name and password log in.
- Joomla portions of the site will function in browsers IE 7.X and higher, and Firefox 3.x and higher.
- Cookies must be enabled on the user's browser.
- Plug-ins might be required for the user's browser dependant upon the lecture capture technology chosen and the subsequent publishing options used, e.g. flash, video, audio.
- Content articles published can be attributed permissions in the admin for specific user levels.
- Javascript must be enabled on the user's browser.

The RAD-SHARE education collaborative Web site, excluding the capture tool portions, has general content requirements including pages for:

FOR THE PUBLIC...	FOR EDUCATORS...	FOR THE LEARNER...
<ul style="list-style-type: none"> • What is RAD-SHARE • Who manages RAD-SHARE • News from RAD-SHARE • Benefits to Educators • Benefits to Learners • Curriculum Overview • How do I join? (as Educator or as Learner) • Sign Up for RAD-SHARE news 	<ul style="list-style-type: none"> • How do I create a Radactic? • How do I provide a review of an existing Radactic? • How do I propose a Radactic topic? • What is the Copyright information for my Radactic? • Educator Community: <ul style="list-style-type: none"> ○ Educator Discussion Forum ○ Educator Live Chat ○ News from RAD-SHARE administrators • My Radactic Map: <ul style="list-style-type: none"> ○ proposed ○ accepted proposals ○ in development ○ draft submitted ○ draft under review ○ in revision ○ ready to publish • Curriculum Overview 	<ul style="list-style-type: none"> • My Radactic Map: <ul style="list-style-type: none"> ○ Viewed ○ to study ○ in progress ○ completed • Collaborad Study Groups (request to join, group topic listing, suggest topic) • Learner Community <ul style="list-style-type: none"> ○ Learner Discussion Forum ○ Learner Live Chat ○ News from RAD-SHARE administrators
<p>FOR EDUCATORS and LEARNERS...</p> <p>Curriculum</p> <ul style="list-style-type: none"> • Chest • Cardiac • Peds • Nuclear Medicine • Ultrasound • MSK • Genitourinary • Gastrontestinal • Breast • Vascular and Interventional 		

The basic organization of these pages is reflected in the following site map. Note that the capture functionality – including Radactic creation, review, and editing – are shown in the dotted circle as they fall outside the capabilities of the Joomla CMS. As of this writing, the RAD-SHARE PIs are considering the hosted solution, Panopto for the capture portions of the RAD-SHARE site.



PROJECT COMPONENTS

TARGET AUDIENCE

It is important to identify key characteristics of the target audience to ensure that the content and instructional technologies are both relevant and appropriate. For the RAD-SHARE education collaborative Web site, there are two target audiences with both shared and unique traits.

SHARED	EDUCATORS	LEARNERS
<ul style="list-style-type: none"> Advanced study of Radiology field Interest in supporting education of new professionals in field Using different platforms (PC and Mac) and different operating systems (Windows Vista, Windows 7, Snow Leopard, others) to access RAD-SHARE site Accessing RAD-SHARE from across the U.S. Native and second language English speakers Motivated to provide and use content related to boards and professional accreditation 	<ul style="list-style-type: none"> Limited exposure to distance education technologies (such as lecture capture) Familiar with field's online resources (such as searching for images, locating articles, conducting research) Limited patience with online technologies and tools Includes both males and females; estimated age range 37 to 57 	<ul style="list-style-type: none"> Average exposure to distance education technologies (such as lecture capture or Blackboard); may have completed one or more hybrid or all-online academic courses and/or continuing education programs Familiar with field's online resources (such as searching for images, locating articles, conducting research) Comfortable with online technologies and tools and trying new online resources Includes both males and females; estimated age range 27 to 37

DELIVERABLES

ITS Teaching and Learning Interactive customizes solutions to fit the budget, timeline, and instructional needs of our campus customers. For this project, ITS Teaching and Learning Interactive will lead the design and development of the RAD-SHARE education collaborative Web site. The project includes these ITS-TLI services:

- Project Management
- Planning, brainstorming, and technology strategy sessions
- Four visual design concepts for graphic user interface (GUI), from which the single final design style will be selected
- Graphic design supporting selected interface design to create appropriate page templates
- Integration of client provided copy into appropriate Site pages
- Creation of templates and site pages to reflect site map and content pages
- Review and edits of client provided copy by Instructional Designer to improve educational effectiveness
- RAD-SHARE site Joomla programming and testing to create site
- Creation of Joomla administrative tool (allowing those with approved user name and password access to edit and manage site content)
- Integration of Client selected capture solution into Joomla-based RAD-SHARE site

- Quality assurance review cycles
- Migration coordination (ensuring product moves successfully to client's selected host provider)

BUDGET

ITS-TLI uses an approved campus interdepartmental fee rate of \$55/hour to create labor hour fees while hardware, software, and other project-related purchases are at cost. Factors used to create the budget include media file estimated length (or "seat time"); content media type (text, audio, animation, other); quantity and availability of existing content sources and resources; and integration of existing and/or custom programming features.

BILLING PROCESS

The ITS-TLI Project Manager oversees the expenses for the project. Invoices and internal labor reports are kept on file. The ITS-TL Project Manager completes the "Deliverable Approval and Billing Authorization" form for designated billing dates throughout the project, the form is submitted by ITS-TLI to the Client Project Manager for signed approval. The signed Authorization form is then submitted to the ITS Business Office and Client Business Office by the ITS-TLI Project Manager for payment and processing.

Projects billings are initiated by the ITS Business Office using the campus automated billing system. Automatic account transfers must be approved by the 10th of each month for processing on the 20th. The exception is the last month of a fiscal year in which billing approval is required by June 1st for processing by June 20th.

BILLING SCHEDULE

Billing Authorization No.	Billing Authorization Sequence	Projected date of automated campus account transfer	Amount
1.	1 of 3	October 20, 2010	\$ 10,458
2.	2 of 3	December 20, 2010	\$ 10,458
3.	3 of 3	April 20, 2011	\$ 10,459
TOTAL			\$ 31,375

SCHEDULE



Project schedules are dependent upon many factors, such as ITS-TLI personnel resources, University holidays, revision cycles, client feedback, and quality assurance reviews.

ITS-TLI works closely with Clients to develop and maintain project schedules reflective of key milestones, academic responsibilities, and project factors (such as budget, personnel, or grant timelines).

The high-level schedule below lists the work to be accomplished during the targeted project timeline of July 2010 to September 2011.

PHASE	TIME	
START		PROJECT INITIATION
ANALYZE / DESIGN	June –August 2010	<ul style="list-style-type: none"> Approval of Statement of Work Project Management Technical planning Establish Joomla shell development server space Initial interface concepts
DEVELOP	September 2010 – March 2011	<ul style="list-style-type: none"> Project Management Graphic design Creation of interface and templates Instructional design and copywriting Joomla site established and page organization determined Page content published, reviewed, and edited Community Builder programming and integration Capture solution (external vendor) integration Quality assurance and testing
DEVELOP/ IMPLEMENT	April - May 2011	<ul style="list-style-type: none"> Joomla programming; pages added and edited Page content published, reviewed, and edited Capture solution (external vendor) integration Quality assurance and testing
EVALUATE	June – September 2011	<ul style="list-style-type: none"> Educator and Student evaluations (surveys, focus groups, feedback, etc) Quality assurance and testing Final file migration and testing
CLOSE	<i>approx. 16 months</i>	PROJECT CLOSE

TEAM

The success of an instructional media project is directly related to the strength of the project team members' skills, both in technical and intrapersonal areas. Collaboration and open communications help ensure that project goals are met or exceeded. Part of the communication is the clear understanding of team roles and responsibilities.



ROLE	TEAM MEMBER	RESPONSIBILITIES
Client Primary Principal Investigator (PI) and Stakeholder	Julia Fielding, PhD Associate Professor (Department of Radiology, Allied Sciences)	<ul style="list-style-type: none"> Act as project approval authority for Client Facilitate identification and scheduling of departmental staff members for project Provide content source information and documents
Client Secondary Principal Investigator, Project Manager and Stakeholder	Alfred Llave, PhD Clinical Fellow (Department of Radiology, Allied Sciences)	<ul style="list-style-type: none"> Serve as the Client's primary project contact for day-to-day operations, feedback, and decision making Provide ongoing and consistent content review and development feedback Serve as contact for administrative- and budget processing-related tasks and issues Provide content source information and documents
Client Stakeholders		<ul style="list-style-type: none"> Provide ongoing and consistent content

		review and development feedback
ITS Executive Project Sponsor	Charlie Green, Asst. Vice Chancellor for ITS Teaching and Learning (ITS-TL)	<ul style="list-style-type: none"> Support the project among ITS management, campus customers, and campus administration Serve as approval authority Provide disagreement resolution for Change Requests, Identified Issues Provide ITS resource commitment and support
ITS-TLI Project Sponsor	Kim Eke, Manager for ITS Teaching and Learning Interactive (ITS-TLI)	<ul style="list-style-type: none"> Serve as project spokesperson Provide feedback to development team
ITS-TLI Project Manager	Megan R. Bell, Production and Project Manager (ITS-TL)	<ul style="list-style-type: none"> Serve as ITS-TLI project manager Manage project reports, meetings, documentation, and communication Manage daily tasks of ITS-TLI team Serve as project's Client liaison Manage project budget requests and paperwork Facilitate change requests Facilitate testing and migration
ITS-TLI Instructional Designers	ITS-TLI Team	<ul style="list-style-type: none"> Review Client copy, edit and revise Participate in moving Client provided copy to Joomla site pages and content areas Support Client communications Contribute to site review and testing activities
ITS-TLI Multimedia Designers and Developers	ITS-TLI Team	<ul style="list-style-type: none"> Create original graphic interface and elements Refine client selected interface to create final design Create Joomla CMS site with administrative tool Integrate selected Joomla Community Builder tools Create custom page templates for Joomla site Integration of third-party/external capture solution into Joomla site as appropriate Oversee site testing Complete QA tasks and revisions Manage final file migration

ASSUMPTIONS

To have a successful project conclusion, there must be an understanding of goals and deliverables by all team members. Additionally, some assumptions have been made that must remain true for the duration of the project phases for deadlines, budgets, and expectations to be met. Project timelines and budgets are dependent on the following assumptions:

ITS-TLI

- The ITS-TLI senior management team approves of the project and commits the appropriate resources towards its successful completion.

- ITS-TLI provides project management, technical research, graphic design, site programming and quality assessment as needed to complete the work described.
- The ITS-TLI Project Manager provides timely feedback and sign-offs to ensure deadlines are met.
- ITS-TL provides migration oversight for the installation of final product on designated servers

CLIENT

- The Client's organizational senior administrators approve of the project and commit the appropriate resources towards its successful completion, as described in herein.
- The Client Project Manager must be available to the ITS-TL Project Manager for the duration of the project to ensure timely feedback on key decisions and final approval for content items and project deliverables.
- Client names single approval authority to provide feedback and deliverable approval.
- Client provides digital photographic files for radiological examples
- Client will select and manage external vendors – including contracts, pricing, and terms – for content capture and site hosting services.

EXCLUSIONS

ITS-TL will provide management and development of the project and resulting deliverables as described herein. Should the project needs and deliverables change from those described in this document to require elements excluded, appropriate Change Orders will be issued for review and approval. The following exclusions to apply to the project:

- Requests deemed beyond the scope of the project by the ITS-TLI Project Manager will result in billable change orders and the initiation of new projects.
- Media services not included in the estimated projects costs include: 2D animation, 3D animation, video production or post-production, audio production or post-production, custom music, development of custom Web applications, and Clickstream database tracking and reporting.

PROJECT MANAGEMENT

ITS-Teaching and Learning Interactive employs a five phase process to create instructional media: Analyze Design, Develop, Implement, and Evaluate or "ADDIE".



During the **Analyze** phase, the ITS-Teaching and Learning team work closely with the SME to develop the instructional approach for the course. Scripts will be written to convey the treatment of multimedia elements and instructional content.

The **Design** phase will provide the client with mock-ups of interfaces and layouts for the course. The content and scripts are finalized.

During the **Develop** phase, the designs move to fully realized, integrated animations and course files. The client is provided access to work in progress for review and feedback.

The **Implement** phase includes, if possible, focus groups and potential student feedback, which is incorporated when feasible. Additionally, the course content files are migrated to the client IT infrastructure for functionality and security testing.

Finally, the **Evaluate** phase concludes the project with final updates and testing.

CHANGE MANAGEMENT

Changes for the project may be identified by project leaders. The request will be submitted to the ITS-TLI Project Manager for documentation as a Change Request that includes an impact assessment in terms of deadlines, learning objectives, and budget. The ITS-TLI Project Manager and Client Project Manager must approve a Change Request for it to become effective.

Should agreement of the change not be reached among the ITS-TLI Project Manager and Client Project Manager, a final decision will come from the ITS Assistant Vice Chancellor of Teaching and Learning, Charles Green. Signed Change Requests will be stored with other project documentation by the ITS-TLI Project Manager.

COMMUNICATION

In consideration of the project team members' varying office locations and schedules, a combination of communication tools, including phone calls, email, and face-to-face meetings, will be deployed throughout the project. General email announcements and meetings will be kept to a minimum, but ongoing communication between the ITS-TLI Project Manager and the Client Project Manager is required. All original project documentation is maintained by the ITS-TLI Project Manager with copies provided to the Client as needed.

ISSUE MANAGEMENT

Issues may be identified by project leaders. The issue will be submitted to the ITS-TLI Project Manager for documentation as an Identified Issue Memo with the issue description, who identified it, and when it was identified. The ITS-TL Project Manager and Client Project Lead must sign off on the Identified Issue for the resolution to become effective.

Should agreement of the issue not be reached among the ITS-TLI Project Manager and Client Project Manager, a final decision will come from the ITS Assistant Vice Chancellor of Teaching and Learning, Charles Green. Identified Issue documentation will be stored with other project materials by the ITS-TLI Project Manager.

PRODUCT AND DELIVERABLES OWNERSHIP

All intellectual property, including copyright, contributed to the project by faculty, staff, or students of the University will be owned by the University. The Client will adopt rules as provided in the University's Copyright Policy. Such rules will also establish what rights will be retained by contributors for using their contributions for their own educational, teaching, research, and/or other defined purposes. All intellectual property, including copyright, contributed to the project by any outside contractor will be governed by the terms of the contract with such contractor. Under

ordinary circumstances, all such contributions shall either be deemed "works for hire" (as such term is defined in Section 101 of Title 17 of the U.S. Code) or be assigned to the University by specific assignment.

Both ITS-TLI and the Client will use prototypes, deliverables, and the final product/s in demonstrations, presentations, and peer networking activities.

PROJECT CLOSE

The project concludes when the ITS-TLI and Client Project Manager have approved all deliverables and all applicable payments have been received in full. The ITS-TLI Project Manager will issue Project Close documentation for the Client Project Manager to sign and close the project.

CONCLUSION

ITS Teaching and Learning Interactive is pleased to partner with FedEx Global Education Center to create the new **RAD-SHARE Kiosk Presenter** programming.

APPROVAL TO PROCEED

The below-signed University of North Carolina at Chapel Hill staff members approve of the project description and goals, initial budget, expected timeline, and final deliverables as described.

Signature Date
Julia Fielding, PhD, Associate Professor
Department of Radiology, Allied Sciences

Project Role: Client Primary PI and Stakeholder

Signature Date
Alfred Llave, PhD, Clinical Fellow
Department of Radiology, Allied Sciences

Project Role: Client Secondary PI, Project Manager and Stakeholder

Signature Date
Megan R. Bell, MPM, Production and Project
Manager, ITS-TL

Project Role: ITS-TL Project Manager

Signature Date
Kim Eke, PhD, Manager, ITS-TL Interactive, ITS-TL

Project Role: Internal Project Sponsor