

Top Suggestions From Across the Disciplines

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BEST PRACTICES: Examples of Programs and Projects that are developing active research collaborations across disciplines”

Institutional Programs & Practices Beyond USC

- The **Radcliffe Institute for Advanced Study** sponsors groups of ten researchers to gather for a few days to discuss a topic in an Exploratory Seminar.
- The **Los Angeles Basin Clinical Translational Science Institute** (LAB CTSI) provides a network for prospective collaborators.
- **The National Cancer Institute’s Specialized Program of Research Excellence (SPORE)**.
- **MIT** has chalkboards all over the hallways so that people can have spontaneous meetings and conversations in public spaces.
- **NCI’s Transdisciplinary Research on Energetics and Cancer (TREC) Centers**: This program nurtures collaborative research and has helped launch successful academic careers.
- At **Stanford**, any faculty can be in charge of any dissertation in any program.
- **UCLA** holds seminars where students have to work with two different investigators in two different departments.
- The **Modern Languages Association** (MLA) has launched a national wiki for rethinking standards for promotion.
- **HASTAC** (Humanities, Arts, Science and Technology Advanced Collaboratory) is a consortium that supports collaborative, networked research across traditional disciplines.

- The University of Virginia (with the help of the Mellon Foundation) has taken the lead in addressing the future of scholarly publication.
- JISC is a UK foundation that supports UK schools at all levels, putting “technology and information management at the heart of research and education.”
- “**What’s Cool Open Mic:**” At Fox Mobile, employees at all levels – from receptionists to executives – were invited to take the floor and talk about something innovative and new.
- Look at University of Michigan for a model for collaborative research.
- **Climate Science:** vast amounts of data are publicly available now, which has generated better science and a lot more public engagement.
- **China’s** investment in hosting major international conferences.
- Scholarship in Action: The president of Syracuse University is creating a model we should follow, which stresses collective work and reaching outside the university for partnerships.
- RAND has the right idea: put together great people from different disciplines into a confined space and they’ll do great work.
- Center for Advanced Study in the Behavioral Sciences at Stanford University (CASBS) is an excellent program, bringing people together for lunch for one year.
- The Fulbright program is an excellent model: post-doctoral programs encourage collaborative research.
- The Department of Defense has an excellent communication model across locations.
- The “Research on Research” program at **Ohio State** allowed undergraduates to get directly involved in faculty research.

Publishing

- Analytical Chemistry has an innovative new feature: they choose their favorite article of the issue and do a video abstract and an entertaining interview with the authors.

- [Music Theory Online](#) is a peer reviewed, online only journal that encourages multimedia publications.
- The open review process is becoming standard in **biology journals**.
- **Engineering journals** are very open to publishing collaborative work.
- *G3, Geochemistry, Geophysics, Geosystems: An Electronic Journal of the Earth Sciences* produces highly vetted research because of the vibrant exchange of comments about articles on the site.
- Economists have embraced the “working paper” model, where papers are posted and reviewed by anyone interested. **Economics journals** do not discriminate against papers that have gone through this public review process.

Technologies

- The engineers said that the main technologies they use for collaboration are teleconferencing, email, **wikis**, **WebEx** and **Skype**.
- [Academia.edu](#) is a new social networking site for academics.
- Technologies like [Pathable](#) allow researchers to informally connect before, during and after conferences/gatherings/events.

USC Programs & People

- [Steven Moldin](#), Executive Director of the USC Washington, DC Office of Research Advancement
- USC’s seminar series “[Engineering, Neuroscience, and Health](#)” brings outside speakers to campus each month for a full day.
- There is less of a silo mentality at the [Health Sciences Campus](#) because of the arrangement of departments and divisions – many disciplines are clustered in the same physical location.
- [Health, Sciences & Technology](#) (HST@USC) aims to create an “innovation environment.”
- “[Critical Code Studies Working Group](#)” used Twitter and Ning to bring together more than 100 scholars for an online conference/workshop that lasted six weeks.
- “**The Night Journey**” is a unique USC Game Lab Research Project that brings together video artist Bill Viola with students and faculty.

- The **professional schools at USC** are deeply collaborative.
- **USC's Psychology Department** is well-known for being highly collaborative
- The **Leonard Schaeffer Center for Health Policy and Economics** is an innovative center at USC.
- The most successful interdisciplinary research at USC tends to be at its **centers**.

MAIN BARRIERS

- *To interdisciplinary research*
 - Different disciplines have different research priorities.
 - Many scholars are skeptical about the value of working outside of one's discipline.
- Physical distance limits contact among University Park Campus, Health Sciences Campus and off-campus research units and centers.
- Scholars are confused about intellectual property rules at the university.
- Especially in the humanities, collaboration isn't part of the culture.
- Tenure guidelines do not reward collaboration or faculty activities online.
- Grant-funded collaborative projects are often not very collaborative (each researcher uses the money to accomplish their own individual goals).
- There are few incentives for collaboration among grad students, and students planning to go on the academic job market are justifiably nervous about sharing credit or working on anything outside of their field.
- There are not enough collaborative workspace areas nor enough opportunities to mingle with faculty from other departments.
- It's very hard to share datasets.
- Putting together a good team and a good research topic takes a lot of time.

WHAT USC SHOULD DO

- Create a more sophisticated searchable faculty research directory
 - May include creating a social media application – a match.com, Craigslist or a Facebook for research
 - May be built upon faculty productivity reports, the experts directory or the Baxter database in Faculty Affairs
- Dedicate more space to collaborative research
 - Create a skunkworks with seed funding
- Create social spaces for casual interactions among scholars from different disciplines
 - Create services/spaces for visiting faculty/researchers
- Revise tenure guidelines to encourage collaboration

- Develop a system to determine credit in multi-author work
 - Give credit for online faculty research activities
- Provide technical training for faculty
 - Develop mentor programs
 - Train them to teach in more interactive learning environments
- Train translators and generalists who can speak the languages of multiple disciplines
- Video conference calling: technically proficient faculty really like Skype – train other faculty to use it as well
 - Offer better tech support for video conferencing
- Structure collaborative grants so that they cover costs for initial in-person meetings
- Create innovative new online publishing models
 - develop mark-up languages
 - create alternate models for scholarly publication (archives, games, databases, etc.)
- Bring more outside scholars to USC (from abroad and from across LA) and structure their visits so that USC faculty have time to network with them
 - Sponsor major international conferences
 - sponsor conferences on cross-cutting/interdisciplinary topics
- Provide incentives for graduate students to work on interdisciplinary projects
 - Encourage them to work with faculty from multiple departments
 - Explore whether Stanford's model might work at USC
 - Prepare students for non-academic careers, which often require collaboration skills
 - Encourage students to develop technical skills (especially students in the humanities)
 - Create an interdisciplinary postdoctoral program
 - Provide students with space/tools for online collaboration
- Conduct research on the effectiveness of interdisciplinary and collaborative research
 - Conduct case studies
 - Ascertain best practices for collaborative research in the professional schools at USC
- Assist faculty in the pursuit of large interdisciplinary grants
- Provide a variety of funding (seed funding, stop-gap funding, mini-grants) for collaborative research
- Hire faculty with a history of collaborative research success
- Develop new criteria for recruiting students that emphasizes creativity
- Take the lead in changing the rules for academic scholarship