

Surviving that first internal proposal submission at ANL

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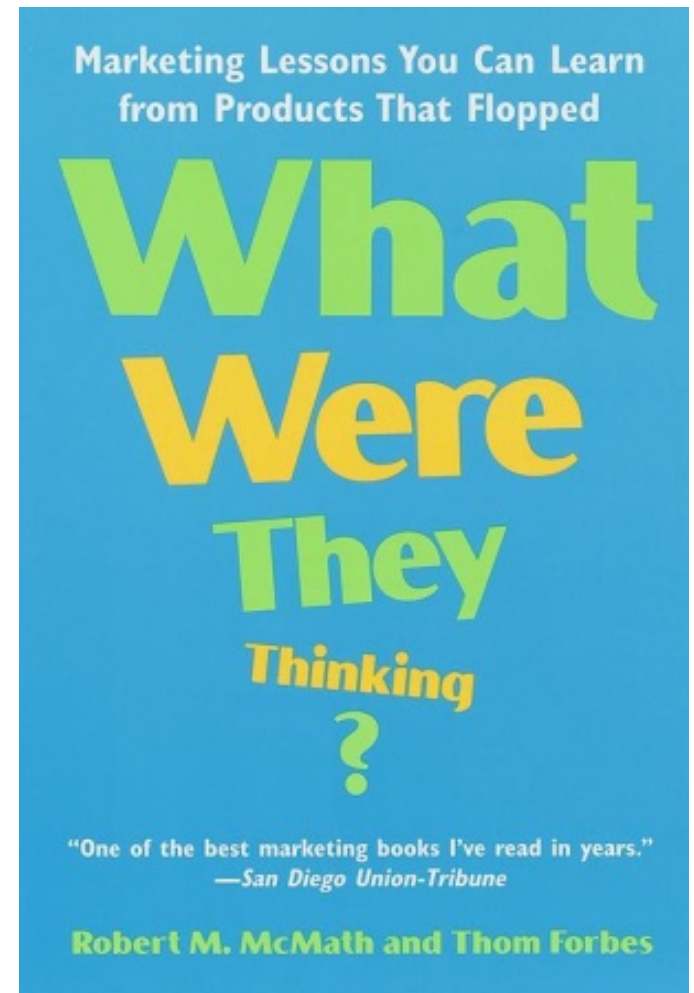


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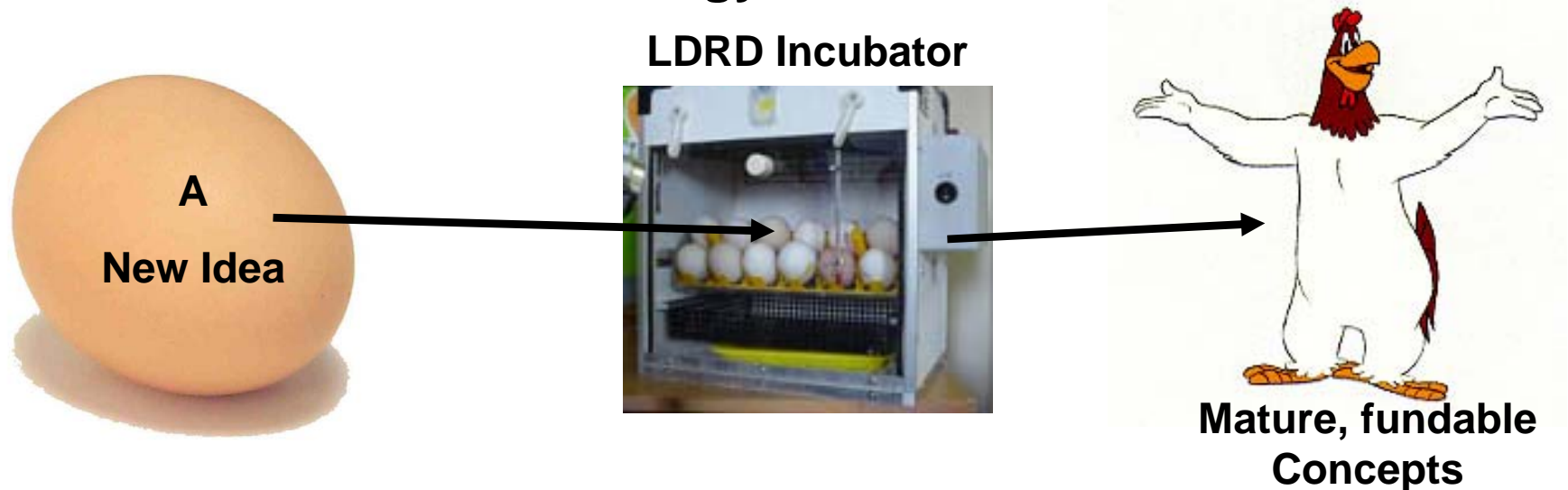
This discussion is long overdue

- **Commend Michelle for organizing the series**
- **Thank lab management for their input and interest that shows commitment to young scientists at ANL**
- **Encouragement / promotion from within is healthy and can lead to an improved work environment**



LDRD proposals are “incubators”

- for larger submissions to outside funding agencies
- that allow the lab to move in new directions
- that permit scientists from within to address successfully new initiatives at the DOE, NIH, DOD, NASA, etc.
- that can fully develop ideas and technology to the point where they can attract the interest of industrial partners that will commercialize the technology

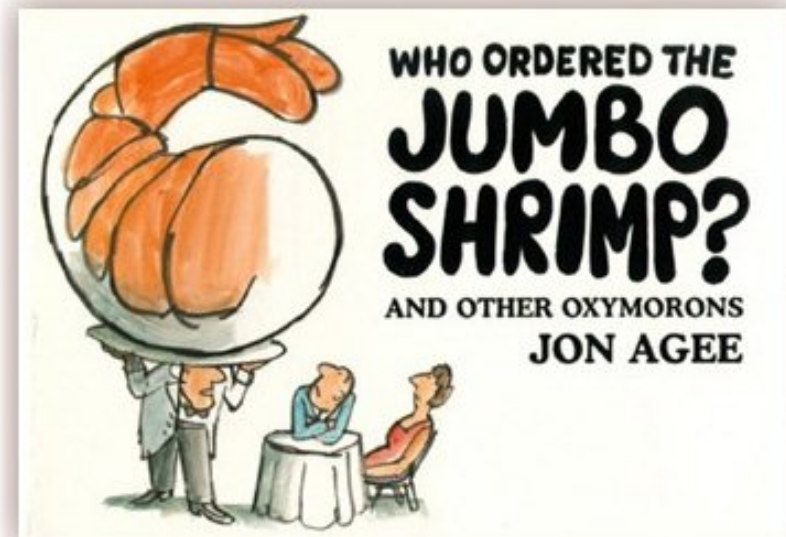
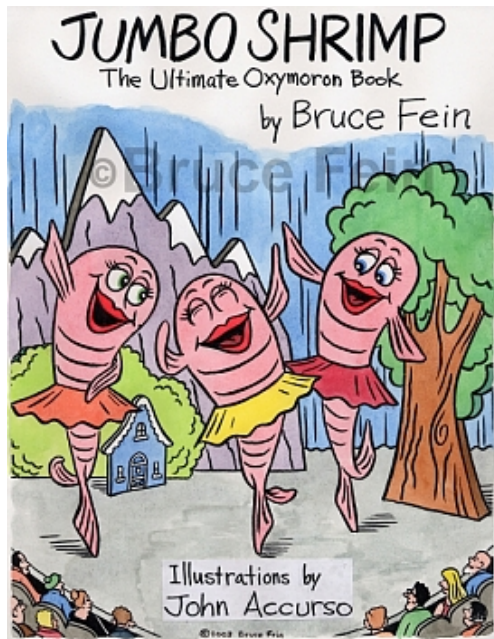


A post-doc (written/initiated) LDRD proposal. . .

- **Is a high risk endeavor**
- **Can be greatly rewarding**
- **Needs guidance from your PI(s)**
- **Also needs blessing by division**
- **Takes time away from research**
- **Is somewhat of an oxymoron**

Famous Oxymorons

Microsoft Works
United Nations
Political Correctness
Linux Complete
Music Television (MTV)
Living Dead
Artificial Reality



Brief history of LDRD program



1995

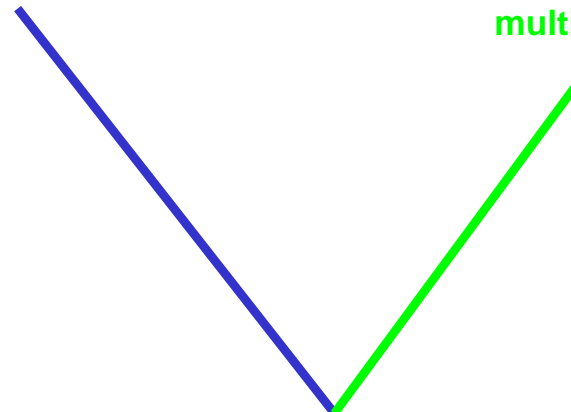
Strategic

Individual

CCST

(basic; small budget; 1-2 years)

(more applied; interdisciplinary;
multiple years)



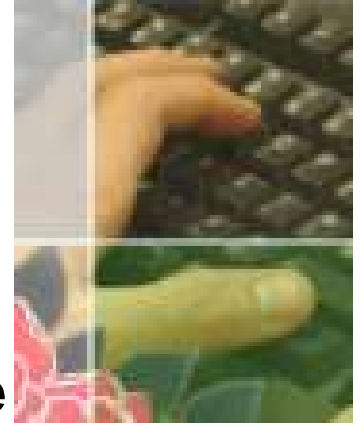
2004

Strategic

Director's Review Committee
(basic and applied; range of budgets; up to 3 years)

What are my qualifications

- **Former ANL post-doc**
- **Multiple LDRD grant recipient**
- **Former co-chair of Director's Review Committee**
- **An individual genuinely interested in making life a little easier for young investigators at ANL**



Know your proposal's audience!!!



- **The ONLY people who review this proposal are your “peers” at ANL (staff) who are members of the INTERNAL Director’s Review Committee (DRC)**
- **There is no OUTSIDE scrutiny of the proposals**
- **The DRC is a diverse group with tons of personal expertise but, most likely, it is outside the scope of your proposal**



Understand the review process

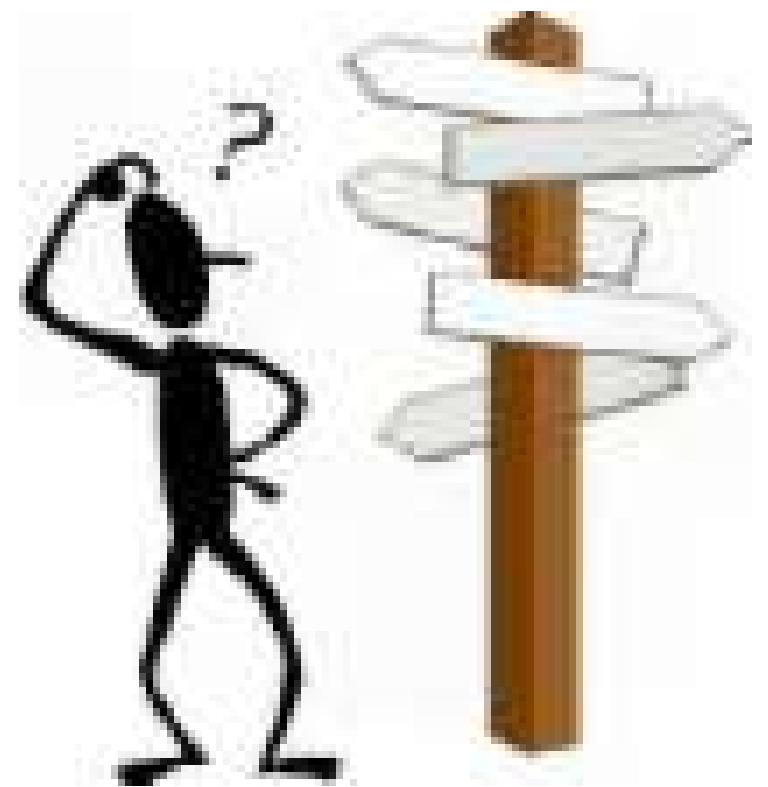
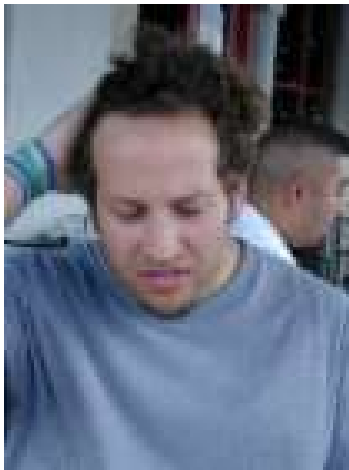
- **Preproposals are submitted in late spring/early summer (short, two-page synopses).**
- **DRC reads over every submission (generally 100-150 from the ANL community). Every division is represented on DRC.**
- **From the top 30-40 proposals, authors are asked to submit a full proposal of no more than 6 pages (expanded versions of all sections that were in preproposal).**
- **DRC reads all full proposals and has a one day meeting where authors defend them with 5 minute oral presentations followed by 5 minutes of questions.**
- **DRC ranks full proposals and submits a list to the director and chief scientist at ANL.**
- **Funding typically has been for 10-20 new proposals per year.**

DRC review criteria

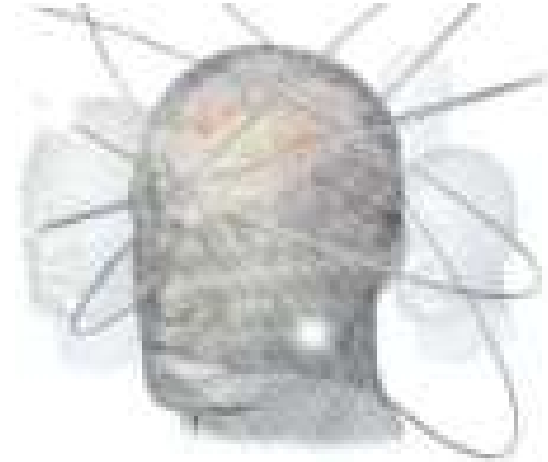
- **Novelty, innovativeness, or originality of the proposed research**
- **Benefits to science and technology derived from a successful project**
- **Feasibility of the proposed research**
- **Likelihood of success within the proposed duration and requested funds**
- **Qualifications of the investigators in the field of the proposed research**
- **Potential for follow-on funding, if successful**
- **Clarity and completeness of the written proposal**

Confusing terms are found within proposal template

- **Benefits**
- **Beneficiaries**
- **Potential for follow-on funding**
- **Customers**
- **Deliverables**
- **Leveraging of external activities**
- **Milestones**
- **Dependencies**



Start of Phil's advice:



Regarding INNOVATION

- **Clearly describe the novel feature of the new work**
- **Differentiate clearly from ongoing programmatic effort**
- **The proposal cannot read like a renewal or it will score low!**



Consider why the research should be conducted at ANL

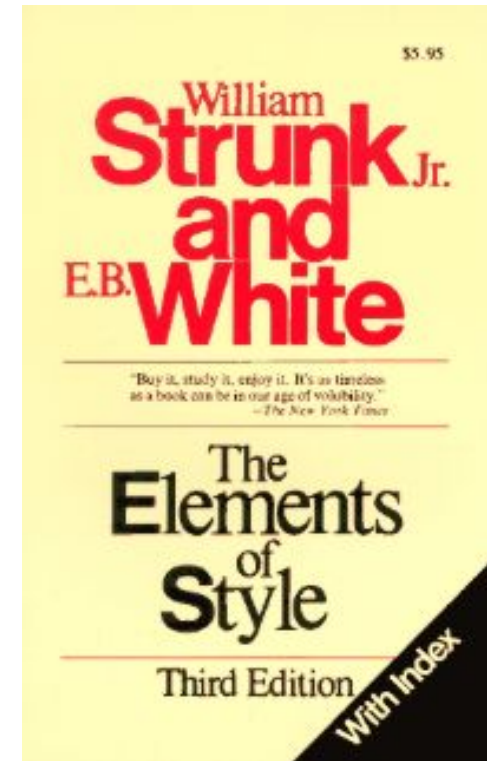
- **Expertise**
- **Synergistic teaming of groups already established here**
- **Resources**
- **Facilities***
- **Scores tend to be low if can't justify why it should be done at Argonne**



***Most successful programs are interdisciplinary and link to the fundamental strengths of ANL – consider involvement of the APS**

The proposal MUST be well written!!

- **Avoid the use of jargon**
- **Limit the use of acronyms**
- **Use simple terms wherever possible**
- **Define terms not familiar to scientists outside your particular field or the focus of the proposal**
- **Demonstrate command of field**
- **Too much detail will bore reviewers and limit their ability to extract the main points of the submission**
- **Trying to make things snazzy or assuming that some points are obvious can also appear arrogant and obnoxious**



Applied proposals are reviewed more critically

- **Hard to sell a project that attempts to build a better mouse trap**



- **Basic versus applied categorization is dictated by author(s)**
- **Consider adding interdisciplinary elements**

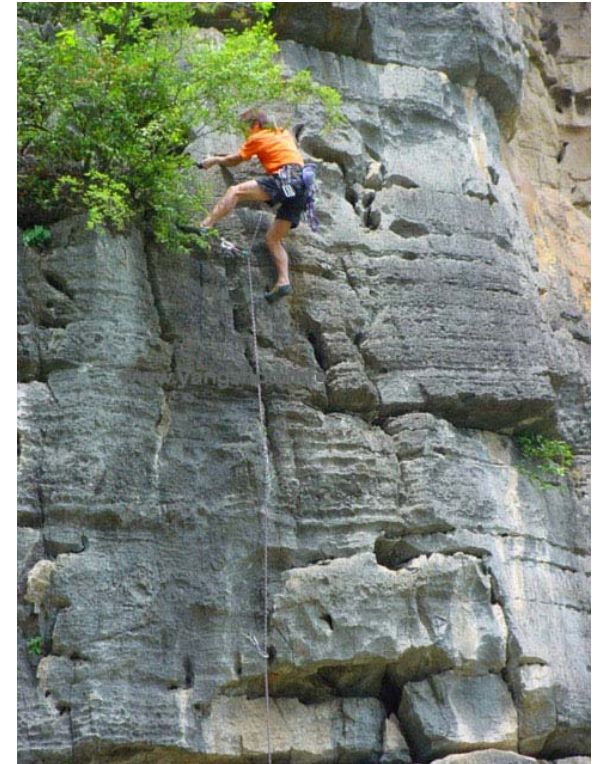
Duration of project must be science driven

- **Proposals can be for three years in length**
- **You must consider project duration up front and be realistic**
- **Hard to justify work later as committee is skeptical about why your previous plans need adjustment**
- **Justify duration with realistic goals and chartable milestones**



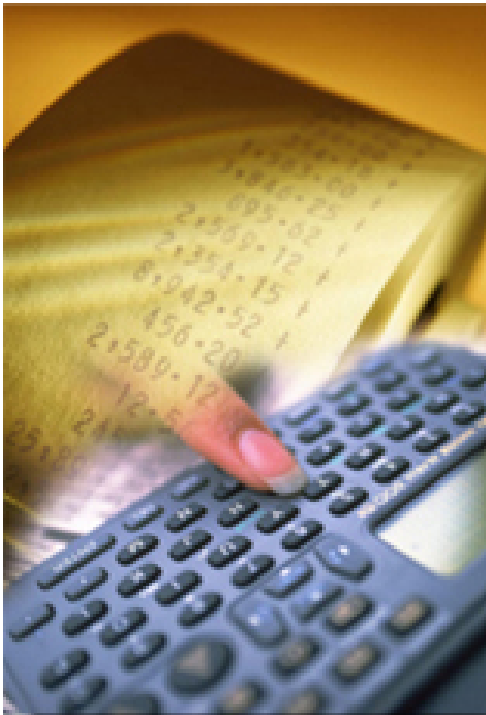
LDRD projects are high risk/high gain

- **By the nature of the development program, LDRD proposals are generally higher risk than those submitted to outside funding agencies**
- **One goal of the LDRD program is to obtain preliminary data for submission that would go for funding outside of the lab**
- **In this respect, the LDRD program can be rewarded many times over with potential high gains**
- **Because these proposals are known to be risky, the review panel expects potential problems to be encountered. A proposal can really shine if these problems are identified and plans to surmount them included in the original text**



Provide realistic budgets

- **Maybe the most difficult aspect of ANL proposal writing is preparation of the budget**
- **Very difficult to understand how budgets come together at ANL**
- **Justify how the funds will be used succinctly in the text**



Follow-on funding potential is extremely important

- **This section is glossed over by many authors**
- **Last section read in submission and leaves reviewers with a cold feeling if author puts no thought into it**
- **Be specific**
- **Link to ANL Strategic Initiatives**
- **Link to new programs being developed at DOE, NIH, DOD, etc.**

**\$\$\$
\$\$\$ FUTURE \$\$\$
\$\$\$**



Additional and final advice:

- **Talk to your division administration to strengthen ideas and coordinate activities**
- **Don't submit too many proposals; choose best idea(s); you could will end up competing against yourself**
- **Small proposals may sneak into program and fill a unique niche(s)**
- **Submit as early as possible as review panel gets the proposal in temporal order of submission and we get tired towards the end of the review process. Last proposals read get less scrutiny (which could be good or bad).**
- **Best of luck and call with questions!!**

