THE INTEGRATION OF ACADEMIC RESEARCH AND STANDARDS - BENEFITS FOR BOTH COMMUNITIES

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ACADEMIC RESEARCH / STANDARDS

• Background about the center and our work
• Research areas
• Standards – falling in and out of favor, and back in again?
• Academic research and standards from my perspective
AN INTRODUCTION TO ICBR
ICBR (formerly BSPA Labs) has been involved in standards for a number of years – over 14, since the inception of INCITS M1, ISO/IEC JTC1 SC37, and INCITS EB and subgroups.
MOTIVATION FOR JOINING A STANDARDS COMMITTEE
Maybe the question should be “why not”?

Didn’t really understand the role of standards, but it seemed like a good way to solve problems that the industry had (or will have)

And solving problems is done by research (at whatever level)
MOTIVATION

• Relatively new field, and a new lab, so we wanted to communicate with industry and government
• Students participated on these committees, by submitting documents, comments, reviews
• Real world experience
In essence, it was a perfect opportunity – new field, new lab, good networking opportunities, and the ability to combine that with research
LUCK OF TIMING

• Institutional changes at Purdue
• Learning, Engagement, Discovery
• Standards falls within the engagement category, and this is broken out in terms of promotion and tenure – a key driver in faculty interest too
A BROADER PICTURE

• But there are many breeds of researcher
• And there are many types of standard
  • How can the academic “fit”
THE ROLE OF RESEARCH
The Interface between Research and Standardisation: Frictions and Possibilities
Knut Blind\textsuperscript{a,b,c,*}, Stephan Gauch\textsuperscript{a}
14\textsuperscript{th} EURAS workshop on standardisation
Cergy-Pontoise
INTERWOVEN STANDARDS AND ACADEMIA

• Education – classes
• Research – classes
• Research – new fields
• Engagement
• Supportive university infrastructure
• Supportive standards environment
• An action plan (standards are slow moving efforts sometimes)
ACADEMIC CYCLES

• Why the academy is a slow moving entity, standards are glacial – which means that sometimes student involvement is very hard to do, for continuity
  • Students operate on 16 week semester cycles (or shorter if it is a quarter system)
  • Standards could take about as long as an undergraduate degree
  • Research therefore has to be at a point when both the student starts the research, or the standard is going to take long enough that there is a continuity structure built up
PARTICIPATING IN STANDARDS

• Non-research activities – like JavaBioAPI
• Research related – like general performance standards
• Research where no standards are useful – due to emerging research which changes often
PARTICIPATING IN STANDARDS

• Performance and access control
  • Domestic and international standards (editors)
• Development of a technical report
• Collaboration with other institutions (UK and South Korea)
OPPORTUNITIES FOR RESEARCH

• Comes from the development of needs early on in the standards development cycle
• Ideas come from new work items and technical contributions
OPPORTUNITIES FOR STUDENTS & COMPANIES

• Interaction with technical experts develops life-long networking opportunities
• The same goes for companies – potential to meet students on an ongoing basis
• Several technical experts from standards committees have been on MS committees (assuming they have the correct credentials)
Could this happen today? In biometrics, this may be harder in the committee I started on, but newer committees and standards groups like FIDO also present these opportunities.