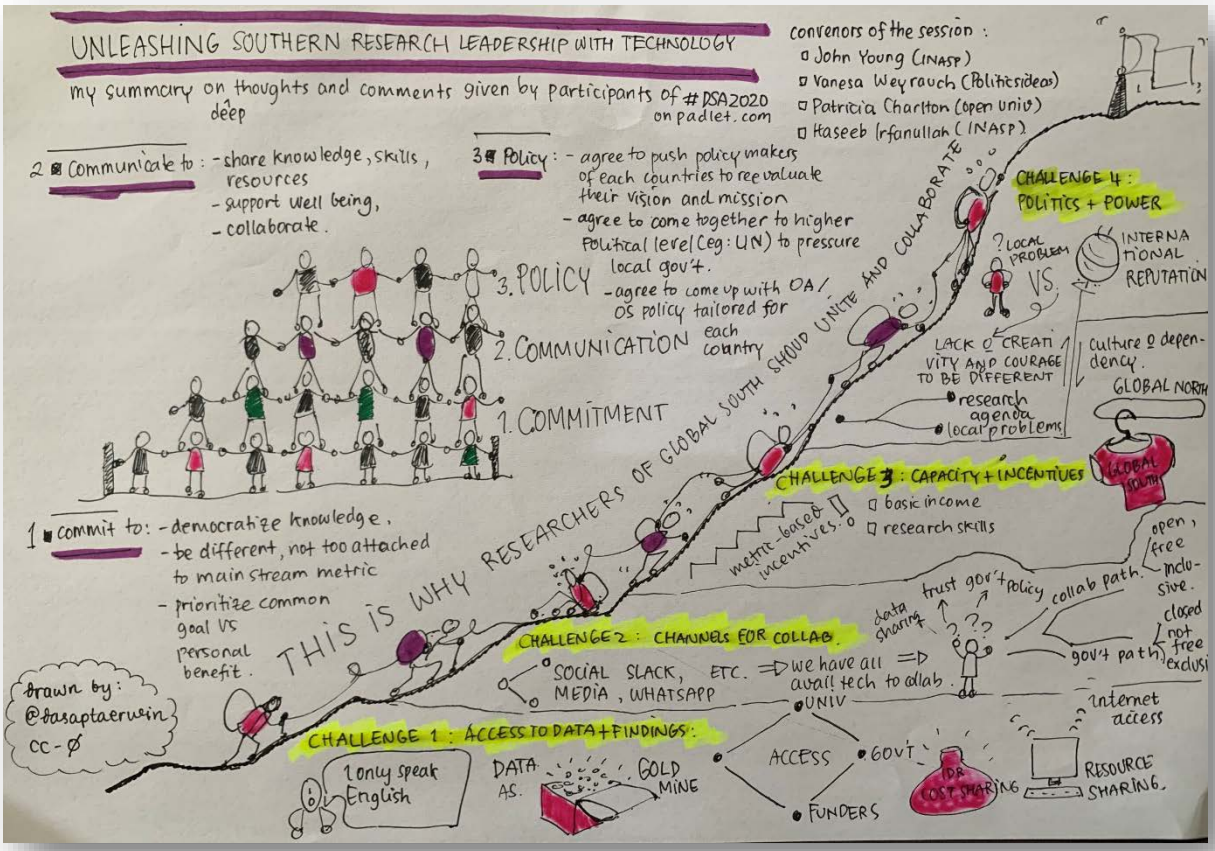
Unleashing Southern Research with Technology

DSA 2020 Panel 43: 16th June 2020. Initial Notes



Picture drawn by Dasapta Erwin Irawan, Institut Teknologi Bandung

Participants at end of Session 2

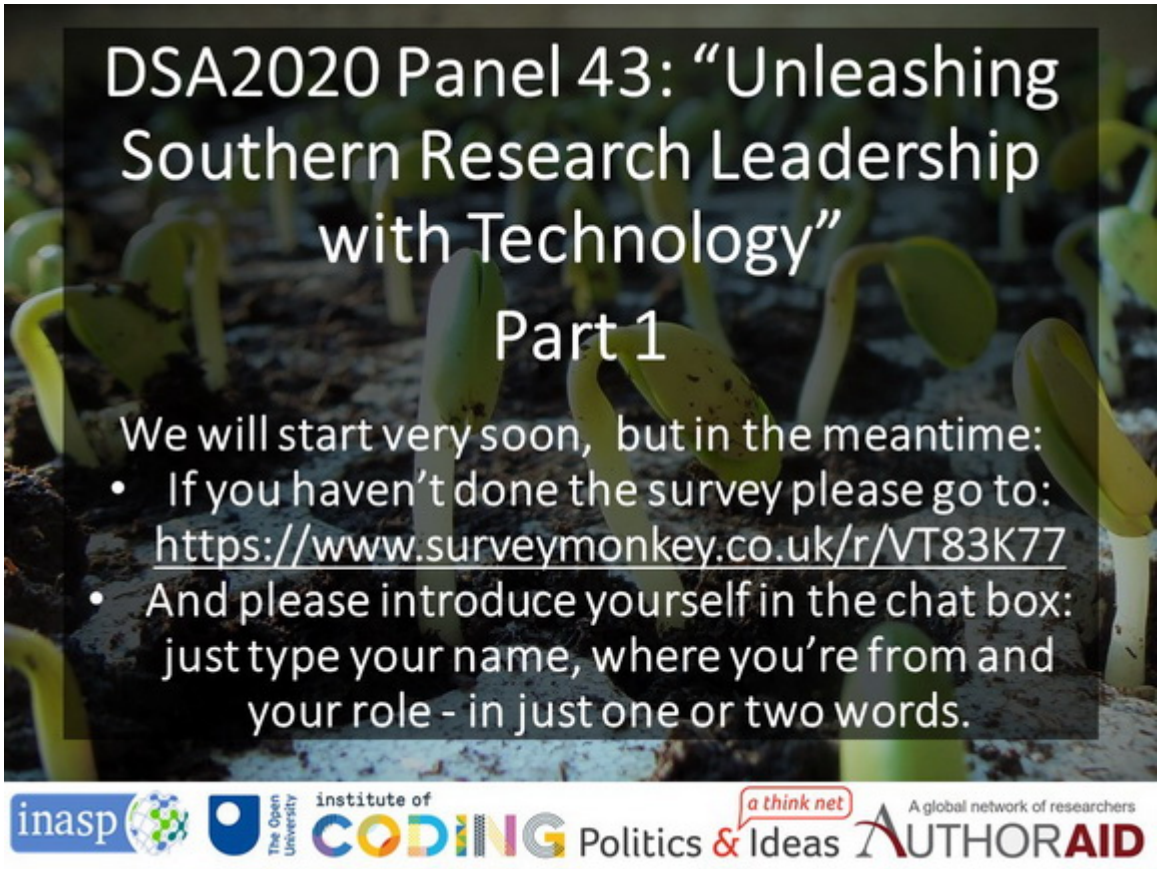
Getting to know each other

What are you drinking this morning?

Is there a band or musician you would recommend other people check out?

If you could spend a season working abroad, where would you go?

Presentation slides



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Challenges from the padlet	Challenges that most resonate with us	Challenges that could be addressed using technology	Food for thought
• Lack access to high quality, relevant and usable research findings - due to cost, internet bandwidth. • Poor digitisation means much good research from the south is 'invisible'. • Researchers lack skills in data analysis, and knowledge of data sources to use. • Institutions lack resources to sustain data management, afford suitable hardware and software. • Data sharing practices and protocols are limited or unclear, some researchers unwilling to share.	• Rigid and complex procedures that researchers need to follow to work with the policymakers. • Poor awareness of and access to relevant local data.	• This challenge could be addressed by developing a digital process that streamlines the RFP and application. • Applications and repositories that link or aggregate existing data sources and provide easier access and analysis. • AI and machine learning to identify and synthesis relevant data.	• If policymakers are willing to benefit from the current procedures to benefit some researchers, they won´t be willing to implement a more transparent digital process. • What about non-digitised and paywalled data?

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Time for group work!

1. Access to data and findings
2. Channels for collaboration
3. Capacity and incentives
4. Politics and power

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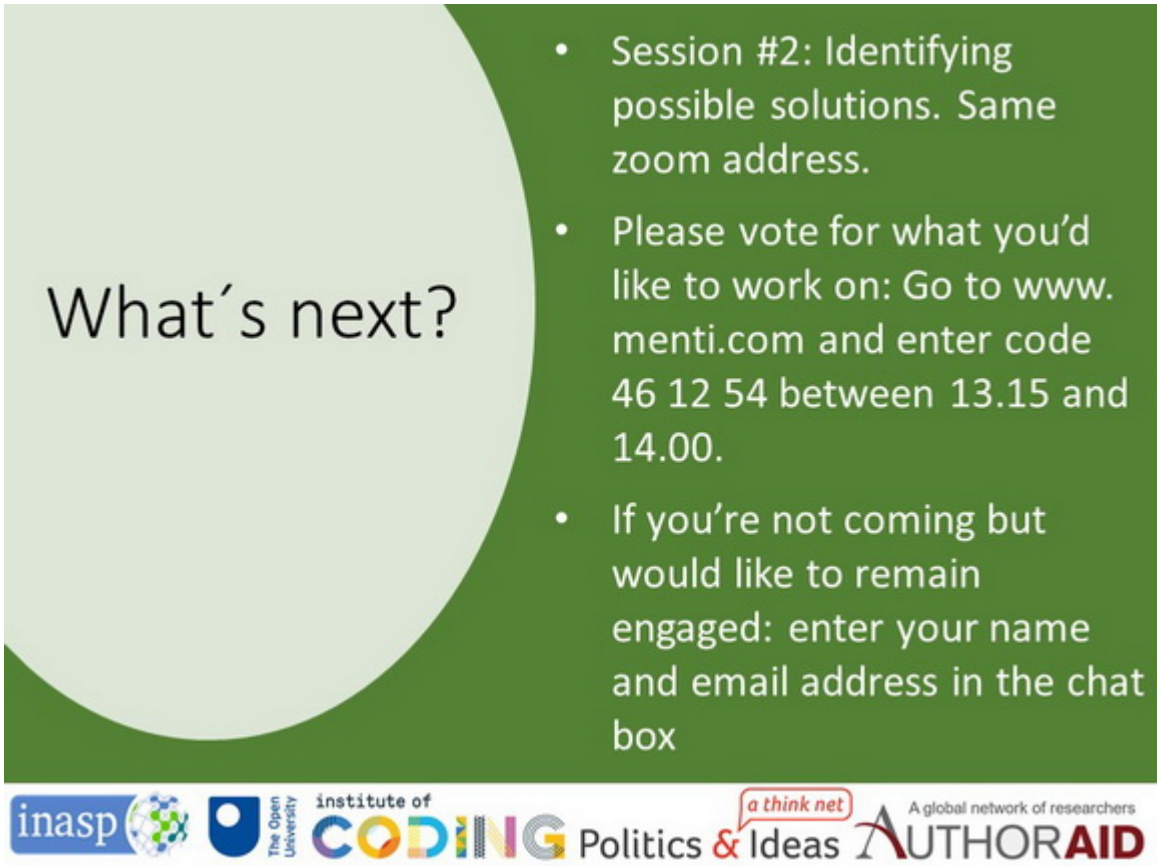

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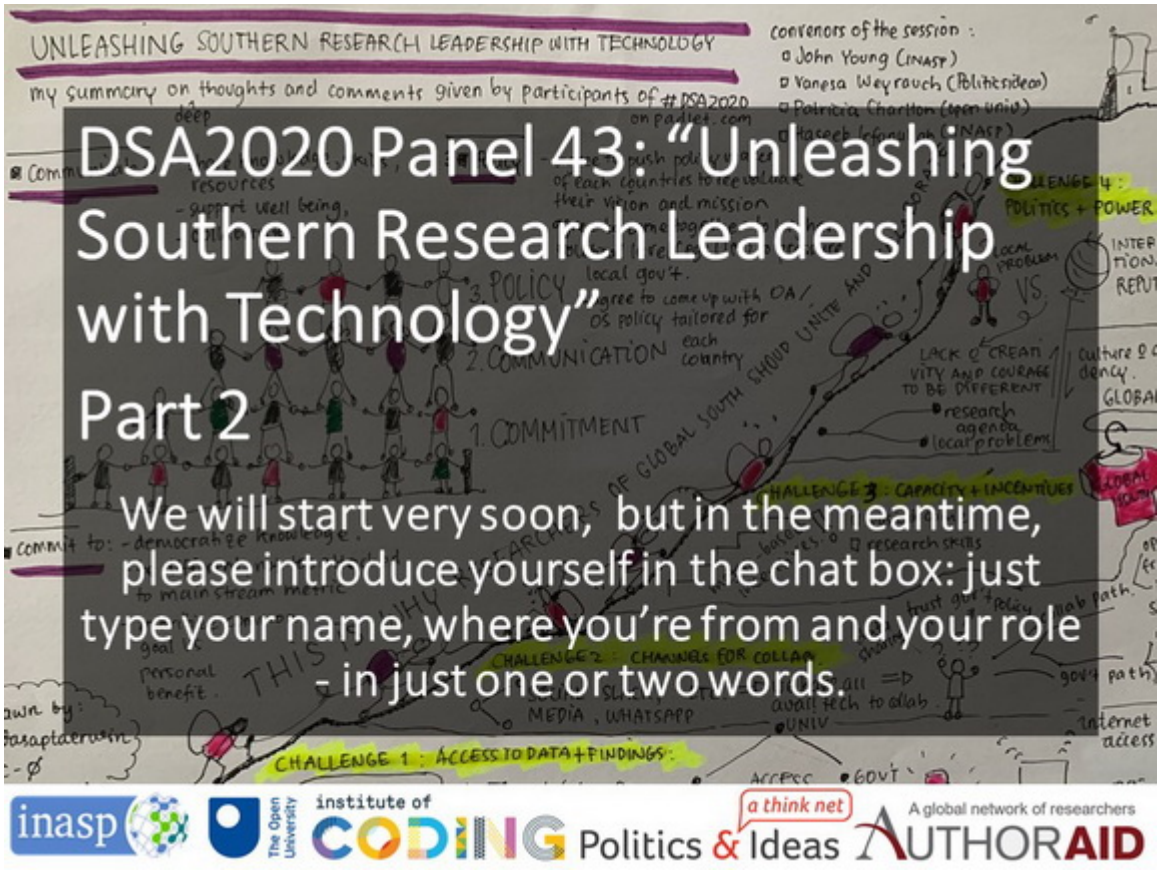

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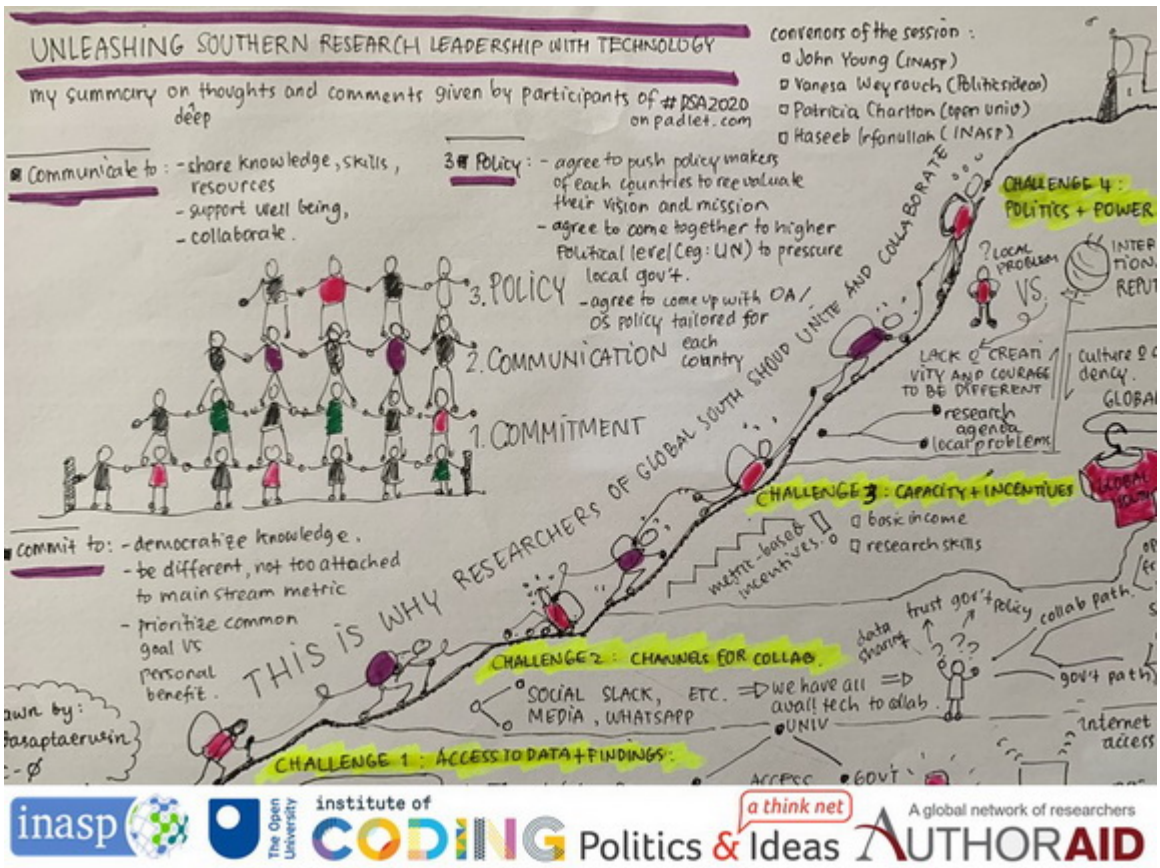

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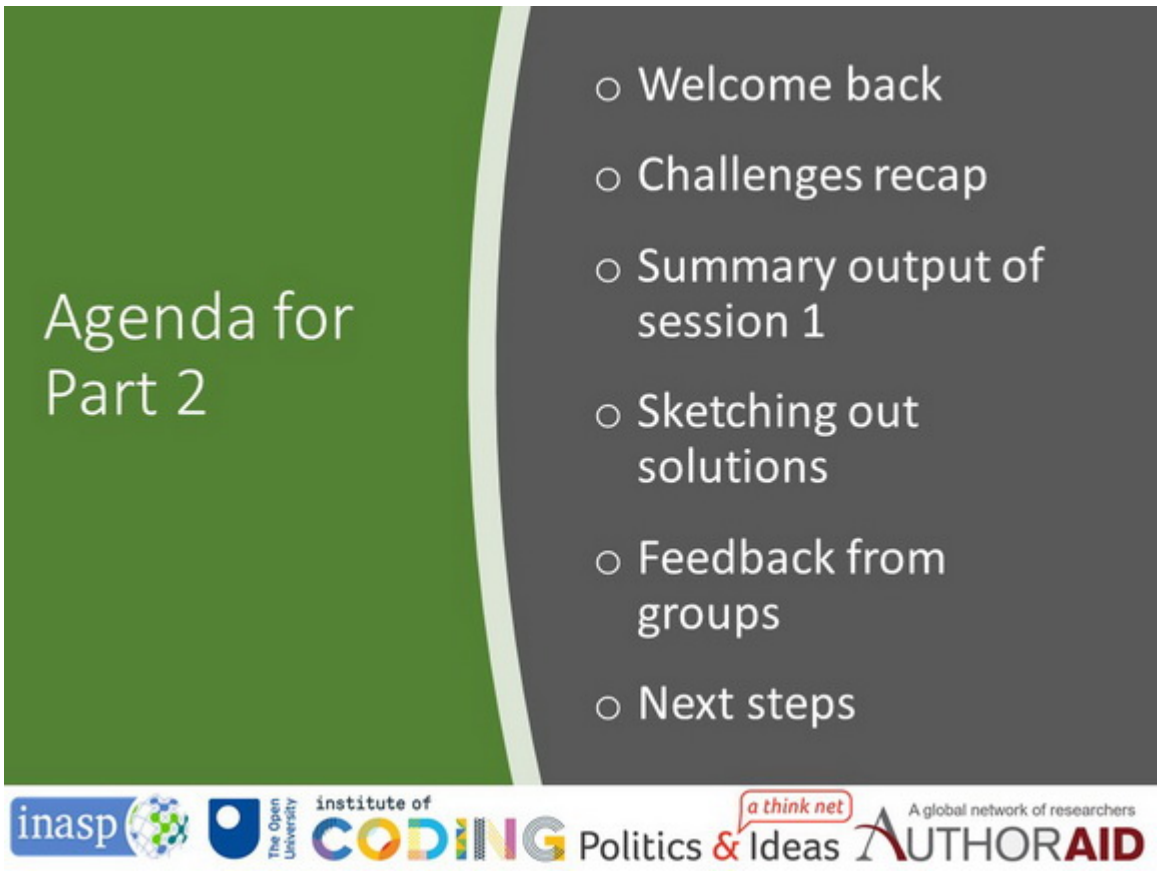

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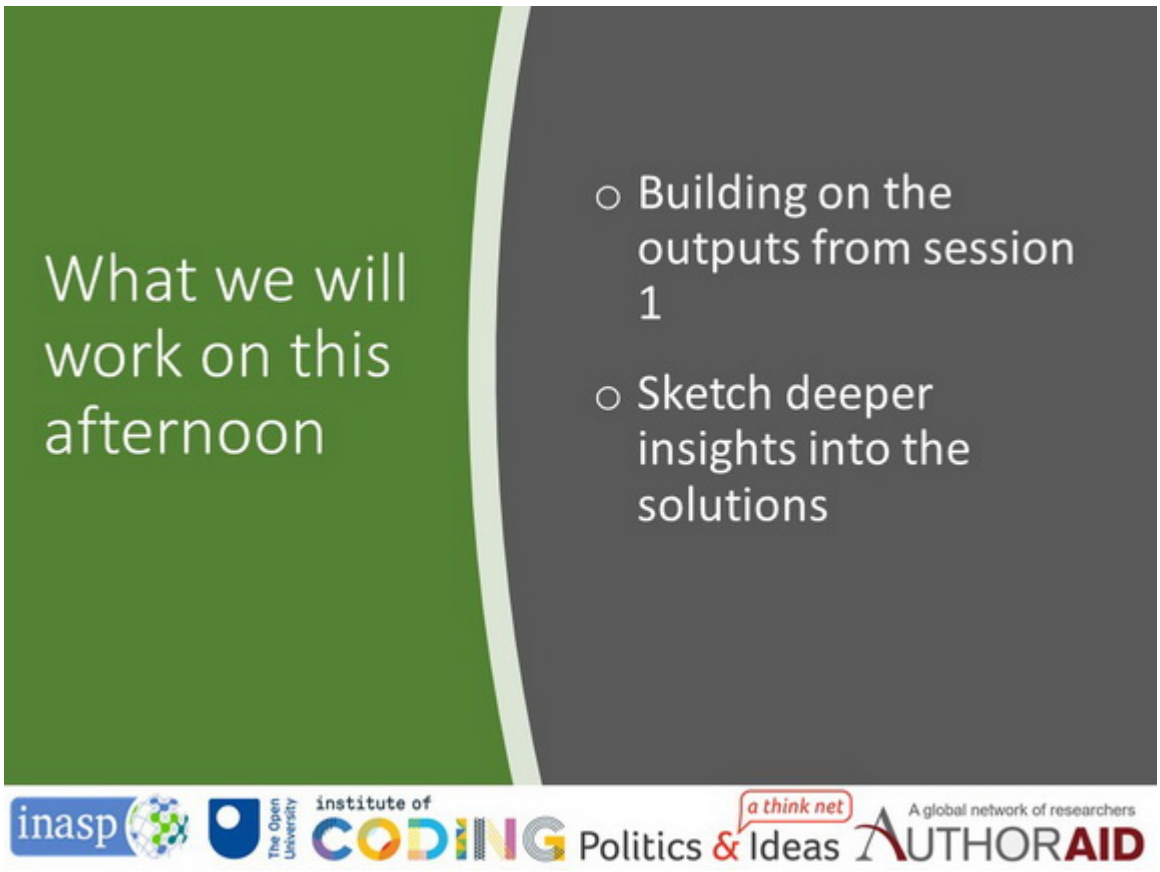

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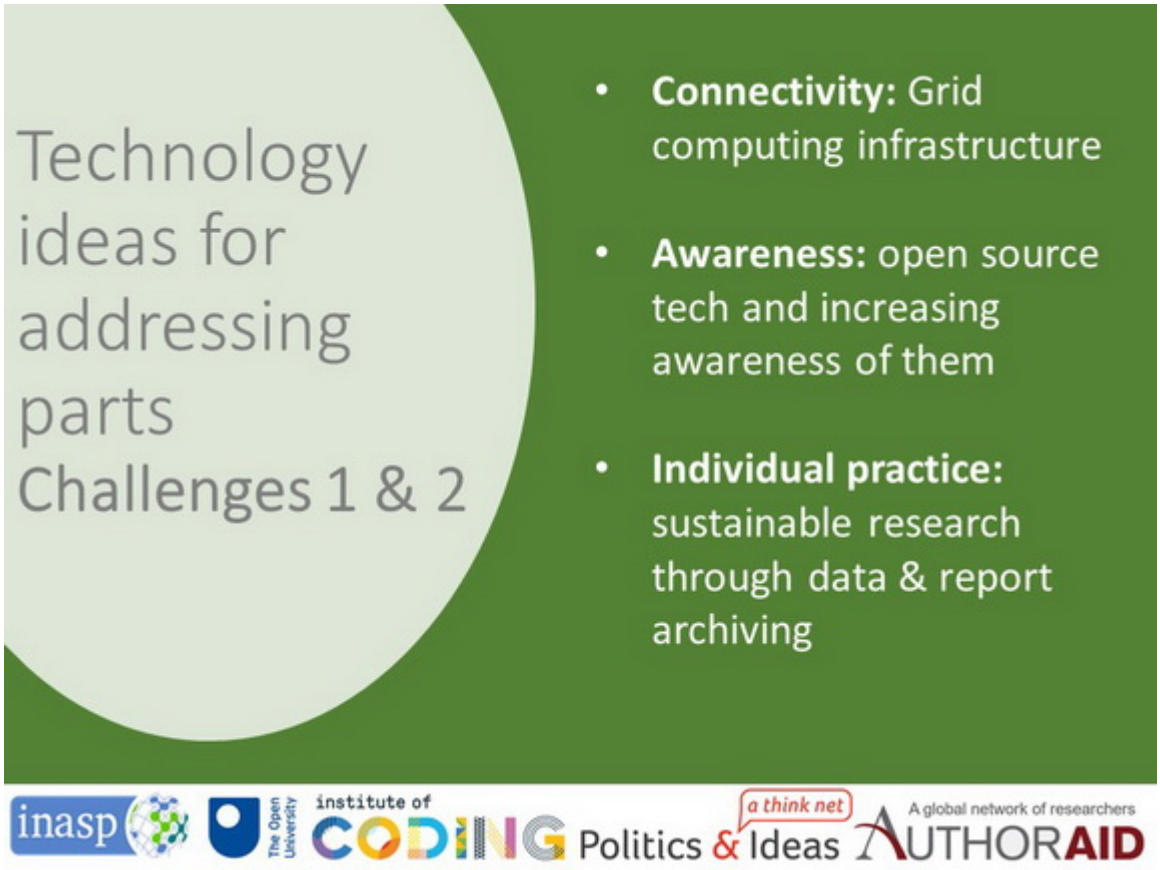

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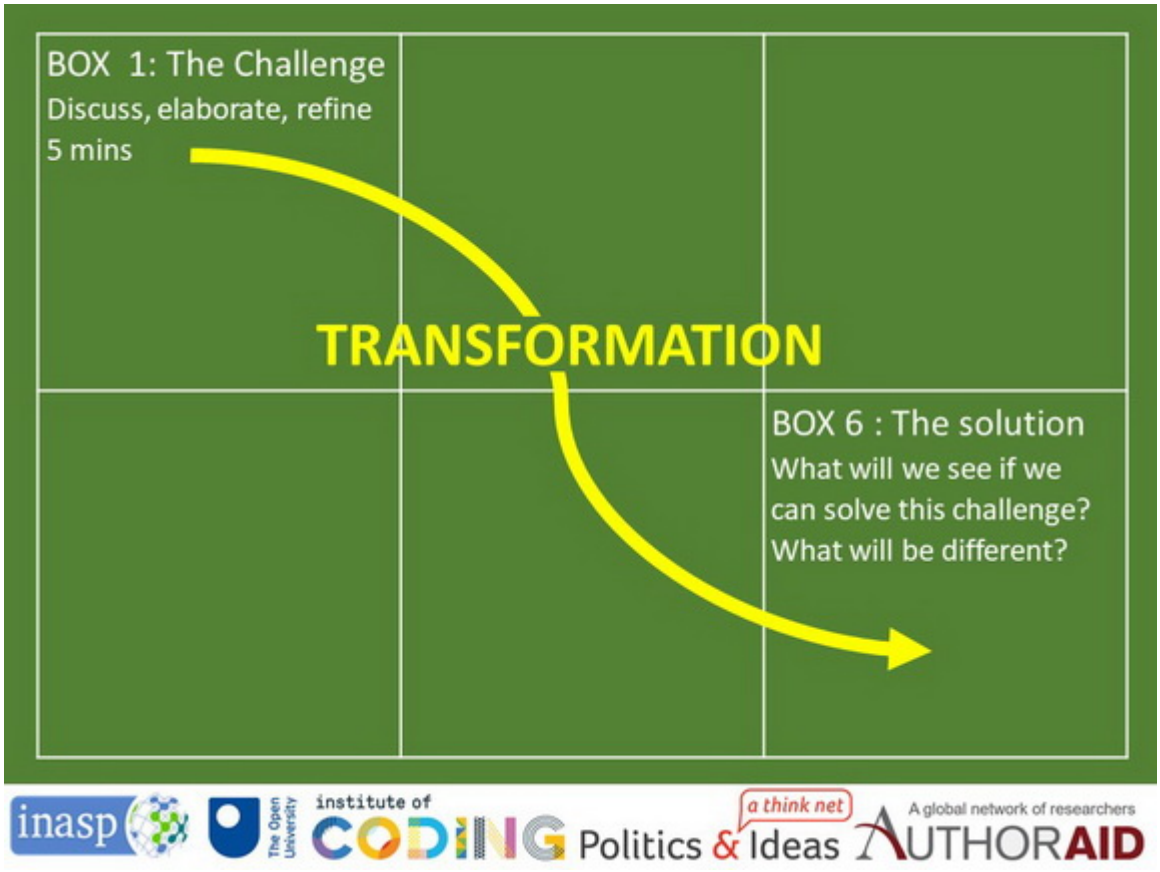

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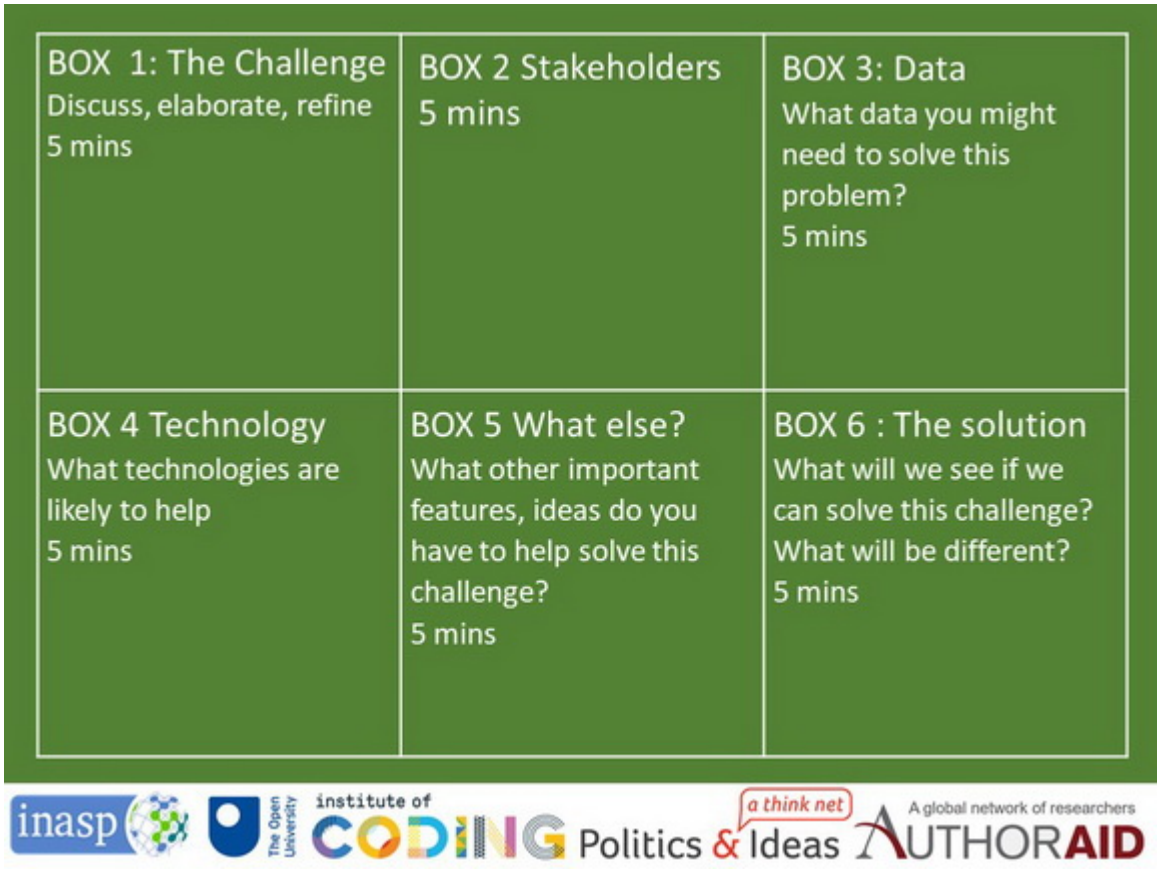

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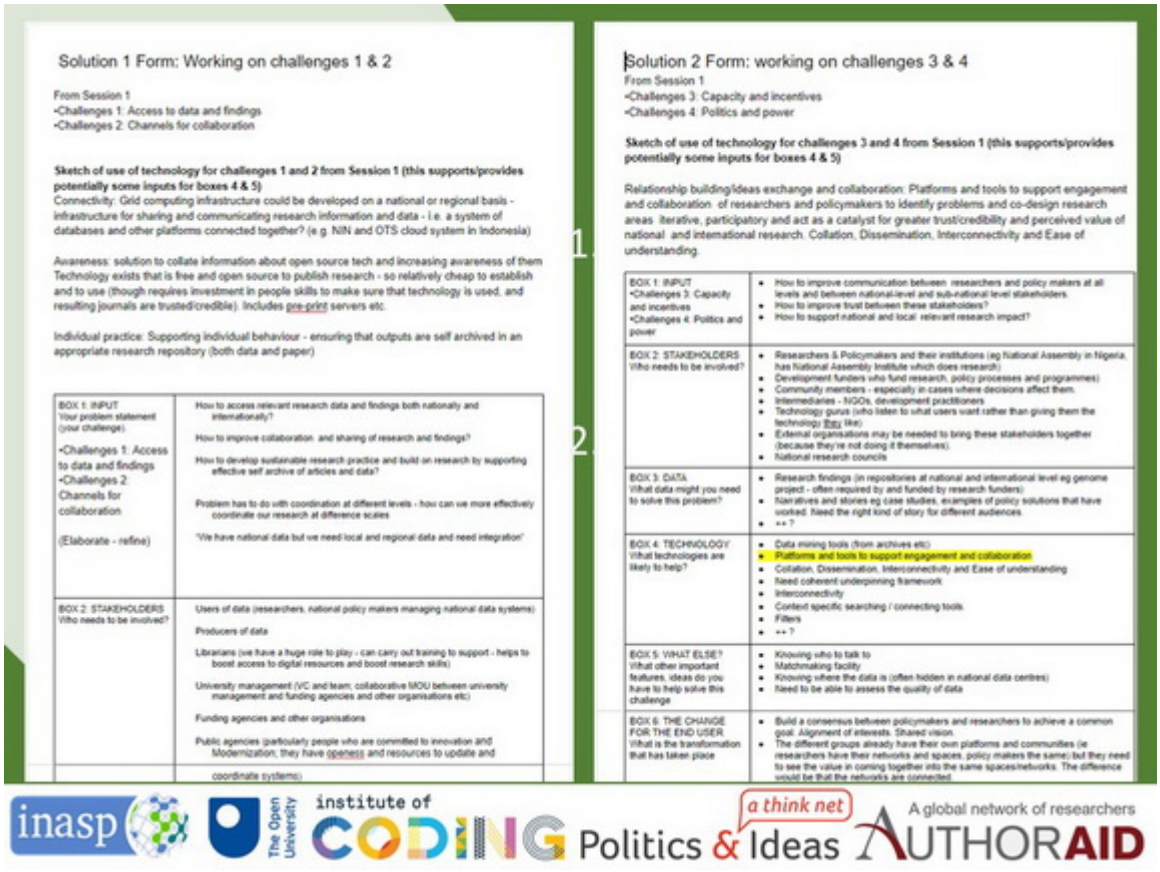

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Group work in session 1

Challenge # 1: Access to Data and Findings

Challenges from the padlet	Challenges that most resonate with us	Challenges that could be addressed using technology	Food for thought
• Lack access to high quality, relevant and usable research findings - due to cost, internet bandwidth. • Poor digitisation means much good research from the south is 'invisible'. • Researchers lack skills in data analysis, and knowledge of data sources to use. • Institutions lack resources to sustain data management, afford suitable hardware and software. • Data sharing practices and protocols are limited or unclear, some researchers unwilling to share.	• We should drop "high quality" - instead it should be about the relevance and usefulness of the research itself • A lack of quality data/information resources - *especially where subscription costs/paywalls create barriers (especially given the need to pay in $ or £ where foreign exchange difficult to access)* • Poor digitisation of Southern published data and research - a lack of OA policy, at institutional or national level is part of this. • Where outputs are digitised they may not be very accessible or usable - i.e. just a PDF • A lack of skills to analyse data, including data visualisation • Outputs not being made publicly available because of funder restrictions - it may either be an "internal report" or funders may push for publication in "top" Northern journals, which then reduces wider accessibility • Access to software	• Ensuring that outputs are self archived in an appropriate research repository (both data and paper) • Technology exists that is free and open source to publish research - so relatively cheap to establish and to use (though requires investment in people skills). Includes pre-print servers etc. • Grid computing infrastructure could be developed on a national or regional basis - infrastructure for sharing and communicating research information and data - i.e. a system of databases and other platforms connected together? • National database of…?	• Self archiving of papers or data can encourage researchers to upload research which may not have been quality assured or peer reviewed, because of the pressure to promote their work • Lobby for government intervention with the telecom industry to develop free/widely accessible internet • Need to have greater "grassroots" knowledge about data sharing, so that all researchers are familiar • Journals increasingly require data to be published alongside the paper - but people may not be comfortable or confident in doing this • Workshops or trainings needed on data analysis and visualisation

Challenge # 2: Channels for collaboration

Challenges from the padlet	Challenges that most resonate with us	Challenges that could be addressed using technology	Food for thought
● From the demand side: ○ High hierarchical barriers + Rigid and complex procedures ○ Low institutionalisation of research ○ Policy priorities not clear to researchers. ● From the offer side ○ Low visibility of research to policymakers ○ Need to make local priorities more visible. ● In between ○ Lack of platforms or forums for collaboration. ○ Scarce opportunities to develop joint research questions. ○ Lack of guidelines on how to collaborate.	● bring demand and supply together because policymakers do not find the research outputs useful for their work and researchers lack the skills to translate research into usable formats - lack of collaboration from the onset of projects mean key stakeholders work in silos but after the research they expect the findings to resonate with each other's needs - it is often too late -	● Supporting engagement and collaboration throughout the research or implementation process ●	

Challenge # 3: Capacity and incentives

Challenges from the padlet	Challenges that most resonate with us	Challenges that could be addressed using technology	Food for thought
● Researchers: ○ Incentives, ○ Don't understand policy, ○ Legitimacy, ○ Elite access, ○ Have to earn a living! ● Policy-makers: ○ Lack technical skills, ○ Reluctant to use research, ○ Don't trust researchers, ○ Don't like research findings! ● Communications: ○ Lack of communication skills, ○ Tend to use jargon. ● Systemic issues: ○ Weak alignment with needs, ○ Few inspiring examples, ○ Limited capacity development, ○ No "critical mass", ○ Politics overrides everything!	● Policy maker skill to use research ● Researcher incentive: Inadequate funding means researchers have to use their own funds to conduct research. ● Perception that Northern research is better than southern research. ● researchers here are more concerned about doing research for promotion, many are not bothered about the policy implication ● Lack of critical mass ● There are virtually no frameworks that integrate incentives into the research function of Southern Researchers in organisations and at the national level. ● there is no forum for collaboration between researchers and policy makers, they are both on 2 parallel lines that don't meet. ● Southern researchers work in isolation because they lack resources to effectively work outside their comfort zones. ● When southern researchers collaborate with northern researchers, southern collaborators are often acknowledged and not co-authors in because most of their contribution to such collaborations is data collection ● research does not meet the need of the society ● researchers in developing world are hardly recognized	● Platform bring researchers and policy makers to work together – stakeholders to collaborate in some way – to connectivity to meet. ● Founded on a framework – well designed and guided .. ● (responsible design approach to the framework – good guidelines) ● Clear technology - concept sharing – e.g. terminology ● The platform should support capacity building ● Linkages between national and local level ● Who is a researcher in this context? ● To be clear on who is a researcher that can produce results that a policy maker can use. ● And national guidelines ● Above to be used in session 2 Additional notes: ● Committees that bring together policy makers and researchers together – a platform – access to this. To support priority of focus - ● Database that has findings from research that can be shared. ● Collaboration with policy makers – involved with the design of research objectives – connecting the different stakeholders .. to facilitate for connecting community/local objectives and research findings ● To encourage them to listen to researchers. ● Platform Training (Professional development for understanding research process)	● Researchers need the political mind – shared understanding

		• Network to share information – in the context that supports communication and exchanges – e.g. social media that supports researchers and policy makers • Founded on a framework – well designed and guided .. • (responsible design approach to the framework – good guidelines) • Clear technology - concept sharing – e.g. terminology • The platform should support capacity building	

Challenge # 4: Power and politics

Challenges from the padlet	Challenges that most resonate with us	Challenges that could be addressed using technology	Food for thought
● Elite, especially northern elite researchers tend to dominate the field ● Research agendas based on funder priorities misaligned with local challenges. ● Research projects do not regard local populations as equal partners. ● Research projects disconnected from day-to-day realities of local communities.	● Northern capture (Elite, especially northern elite researchers tend to dominate the field) ● Research disconnected from day-to-day realities. ● Decolonise the knowledge and research space, to give everyone an opportunity based on the research issues they are interested in. ● Northern scholarship is favoured ● researchers in developing world are hardly recognized ● There is are no national guidelines /structures for going from research to policy. ● Funders are often not very interested with solving problems, but with extracting data ● There is are no national guidelines /structures for going from research to policy. ● The research issues which Northern researchers are interested in are quite different from those that Southern researchers are interested in, So there is a need recognize this difference for funding and publications. ● research does not meet the need of the society ● labels like local Researcher are used to describe researchers from the south and International researchers used for those in the north. (lots of agreement on this)	● Platform as discussed in challenge 3 (we didn't discuss these challenges as we focused on challenge 3 notes) ● national guidelines /structures for going from research to policy.	● Something needed to change the terminology of how researchers are referred to

Additional comments in plenary 1

- Indonesia has a lot of OA journals, but people are still chasing expensive pay to publish OA journals
- Need to make better use of the existing free and open source technologies - such as pre-print servers. Awareness and familiarity with these systems is sometimes limited.
- Dasgupta had some comments about how governments value and trust research, and how they perceive quality, but these did not seem to relate to technology
- Technology can't solve trust problem but could be a catalyst for change, by connecting communities. Platforms can support process, but people bring the change.
- Awareness is key to succesful technological solutions
- The framework is Collation, Dissemination, Interconnectivity and Ease of understanding.
- Can we also consider the role of Communities of Practise, which has become a way that technology assists the sharing of data and ideas
- Especially for collaboration between both researchers and policy makers
- Policy making in the South is also influenced by Dominant International NGOs who fund development projects. They too need to join the platform.

Group work in session 2

Solution Group 1: Working on challenges 1 & 2

Challenges 1: Access to data and findings
Challenges 2: Channels for collaboration

Brought forward from Challenge group work:

Connectivity: Grid computing infrastructure could be developed on a national or regional basis - infrastructure for sharing and communicating research information and data - i.e. a system of databases and other platforms connected together? (e.g. NIN and OTS cloud system in Indonesia)

Awareness: solution to collate information about open source tech and increasing awareness of them

Technology exists that is free and open source to publish research - so relatively cheap to establish and to use (though requires investment in people skills to make sure that technology is used, and resulting journals are trusted/credible). Includes pre-print servers etc.

Individual practice: Supporting individual behaviour - ensuring that outputs are self archived in an appropriate research repository (both data and paper)

Solution group work:

BOX 1: INPUT Your problem statement (your challenge). •Challenges 1: Access to data and findings •Challenges 2: Channels for collaboration	• How to access relevant research data and findings both nationally and internationally? • How to improve collaboration and sharing of research and findings? • How to develop sustainable research practice and build on research by supporting effective self-archive of articles and data? • Problem has to do with coordination at different levels - how can we more effectively coordinate our research at difference scales • “We have national data but we need local and regional data and need integration”
BOX 2: STAKEHOLDERS Who needs to be involved?	• Users of data (researchers, national policy makers managing national data systems) • Producers of data • Librarians (we have a huge role to play - can carry out training to support - helps to boost access to digital resources and boost research skills) • University management (VC and team; collaborative MOU between university management and funding agencies and other organisations etc) • Funding agencies and other organisations • Public agencies (particularly people who are committed to innovation and Modernization; they have openess and resources to update and coordinate systems) • Data management experts and data stewards • Community (people involved in using data and also producers of data) • NGOs • National and regional policy bodies • Top-level coordination but also grass roots involvement • National statistical offices
BOX 3: DATA What data you might need to solve this problem?	• How much data is being produced but not captured? (Some of this will be in published materials and research findings) • Who are the producers and users? • What standards need to be adhered to? Guided by legal framework • Are we talking specifically about research data or broadly about all data? - Broad spectrum, shouldn’t limit - would we compartmentalise the different types of data eg by subject areas • We have national data, but what we need is the regional, local and state level data. We need agencies that collect data. These also need to be centralized.

	• Difference between public/private data. Do we need to bear in mind copyright and IP? • We do have national statistical offices who produce a lot of data from census data, household surveys • Data will be available and restrictive firewalls removed • Good awareness from researchers about open source tools and sources of data? • Different funders may have different policies related to depositing and sharing data • Reliable and on time data • Existing data sources and platforms, who are the producers and user? What relevant data standards are important to bear in mind for interoperability (e.g. FAIR)
BOX 4: TECHNOLOGY What technologies are likely to help?	• Central server at national level to put data in/data repository • Is there any technology to improve awareness of different data systems? (new or existing) • Coordinating existing technology • Cloud technology - privacy issues need to be considered • University databases - often a good place to start. Students and researchers engage in the process - how to link these up together in one network - but fragmented at the moment and nobody is talking to each other. Lots of sources but nobody knows what is available and so many bottlenecks in trying to get data - the tech is about to make the linking up easier • We shouldn't forget individual agencies should look after their own data well before sharing nationally and internationally • Data sharing platforms must be there for national and international level
BOX 5: WHAT ELSE? What other important features, ideas do you have to help solve this challenge	• Collaboration between institutions in global south/coproduction • How to get people to work together • Starting with communities of practice - to try out prototypes and explore before scale up - may be themed around specific subject areas • Bottom-up engagement involving all stakeholders • Awareness is a huge issue - if you don't know what's available that limits effectiveness of research - librarians can help with awareness. are there any ways that we can help researchers navigate existing databases better, or improve discoverability? • Develop Guidelines • National policymakers managing national data systems
BOX 6: THE CHANGE FOR THE END USER What is the transformation that has taken place	• There's presently a gap between amount of work produced between north and south - when do analytics of quantity and quality of research you see a gap. Maybe as a result of bias. There should be an improvement. Those gaps should close if there is better access. • If the transformation takes place data will be available to help better research • National data systems will be transparently managed and improve confidence in national estimates - tie in with confidence that policymakers will have in researchers in their own countries. • Ties in with where people publish - increase confidence in national databases and publishing systems • We would be able to have enough access to current data to strengthen our research output. • Less fragmented data systems especially in the public space • It will have a trickle down positive effect on the economy.

Solution Group 2: working on challenges 3 & 4

Challenges 3: Capacity and incentives
Challenges 4: Politics and power

Brought forward from Challenge group work:

Relationship building/ideas exchange and collaboration: Platforms and tools to support engagement and collaboration of researchers and policymakers to identify problems and co-design research areas iterative, participatory and act as a catalyst for greater trust/credibility and perceived value of national and international research. Collation, Dissemination, Interconnectivity and Ease of understanding.

BOX 1: INPUT •Challenges 3: Capacity and incentives •Challenges 4: Politics and power	• How to improve communication between researchers and policy makers at all levels and between national-level and sub-national level stakeholders. • How to improve trust between these stakeholders? • How to support national and local relevant research impact?
BOX 2: STAKEHOLDERS Who needs to be involved?	• Researchers & Policymakers and their institutions (eg National Assembly in Nigeria, has National Assembly Institute which does research) • Development funders who fund research, policy processes and programmes) • Community members - especially in cases where decisions affect them. • Intermediaries - NGOs, development practitioners • Technology gurus (who listen to what users want rather than giving them the technology they like) • External organisations may be needed to bring these stakeholders together (because they're not doing it themselves). • National research councils
BOX 3: DATA What data might you need to solve this problem?	• Research findings (in repositories at national and international level eg genome project - often required by and funded by research funders) • Narratives and stories eg case studies, examples of policy solutions that have worked. Need the right kind of story for different audiences. • ++ ?
BOX 4: TECHNOLOGY What technologies are likely to help?	• Data mining tools (from archives etc) • Platforms and tools to support engagement and collaboration • Collation, Dissemination, Interconnectivity and Ease of understanding • Need coherent underpinning framework • Interconnectivity • Context specific searching / connecting tools. • Filters • ++ ?
BOX 5: WHAT ELSE? What other important features, ideas do you have to help solve this challenge	• Knowing who to talk to • Matchmaking facility • Knowing where the data is (often hidden in national data centres) • Need to be able to assess the quality of data

BOX 6: THE CHANGE FOR THE END USER What is the transformation that has taken place	• Build a consensus between policymakers and researchers to achieve a common goal. Alignment of interests. Shared vision. • The different groups already have their own platforms and communities (ie researchers have their networks and spaces, policy makers the same) but they need to see the value in coming together into the same spaces/networks. The difference would be that the networks are connected. • More shared knowledge. Better contextualised knowledge. Linking local challenges with local knowledge (rather than external knowledge) • Bringing policy makers in Ministerial departments together with researchers who are working on a particular Ministry's interest they can begin to know each other and come together • Researchers are more aware of the importance of their research and policymakers are aware of the value of research. • Both researchers and policy makers recognise that they do not know everything, but by working together can make better decisions. • More trust between all stakeholders • This would encourage more innovation and better use of technology to take on new challenges. Moving beyond “pockets of excellence” • The impact of research is increased.

Additional comments in plenary 2

Challenge 1 & 2: Access to data and channels for collaboration at many different levels of the research & knowledge ecosystem

- Issues of connectivity, awareness and individual practice
- Stakeholders: Large number of stakeholders, which points to the nature of the problem. those involved in demand/supply – we flagged the use of data sets by communities, they are often overlooked. NGOs etc. Need to break down silos between international/national/regional level agencies
- Data: we don't know what data is out there/what the gaps are
- Need to make sure standards are understood and that there are clear frameworks for how to share data - both standards, and legal/IP protection
- Technology: central servers for accessing data. Awareness is hugely important here - need people to be aware of what is available and how to access this. Cloud technology can help, but there are limitations/risks in terms of piracy/data protection. University databases are a good place to start
- What will help?: Collaboration and co-creation – how can we get people to work together? Bottom up engagement as well as top down.
- What transformation would take place?: Data is available, transparent, less fragmented and ties in with what people want to do.

Challenge 3 & 4: Capacity and incentives/politics and power

- Very interested in how to connect national and subnational level. Issues of trust and value for researchers and policymakers to work together. Not necessarily and issue of technology
- Stakeholders: Lots of stakeholders required – wide range of researchers, policymakers and type of institutions. And funders. Could NGOs help facilitate these communities to work together?
- Data: Use stories and narratives/case studies
- Technology: match making technologies to bring different stakeholders together. Technology to locate the right info/evidence… we know it is out there, but how can we get to it?
- What transformation would take place?: researchers and policymakers trust each other and are united in a common goal. So, more effective research would start to come through and this may also result in willingness to take risks in trying new approaches (based on trusted relationships). We'd be able to go further in our thinking.

Follow up comments

- These seem to be road and ambitious projects with multiple stakeholders. Are there some specific components that INASP can identify that we can realistically address?
- Need to take an incremental/iterative view. Analyse what the requirements are to achieve these goals, and then identify what steps are required and what is easy/hard to do. assess if there are "easy" things to do that bring significant value and can take us forward?
- How do we use technology to reach out to other stakeholders?
- Consortiums and collaboration with other institutions, Sharing resources e.g databases and other resources
- Creating awareness for researcher and the policy makers how to collaborate