Notes of conversations with members of the community on the survey questions

The interview should open with an explanation of the purpose of the exercise, the approach being adopted and the use to which the information gathered is being put.

The task of the interviewer is to establish him/herself as a good listener, yet, at the same time, a constructive participant in the conversation.

Normally [this is] in reactive mode, seeking clarification, asking for amplification or feeding back what has just been heard. Sometimes, however, it is necessary, and profitable, to share and stimulate the discussion by way of reciprocity of views or recounting of anecdotes. This has to be infrequent and very carefully judged.

Encourage the participant to consider the future when the response is status quo.

If the answers are very broad, ask for details; if they are very detailed, ask for generalities.

If the person asks "what do you mean by [x]" ask them what they feel is the most important [x] to be considered in the next 10 to 15 years.

Fifth conversation (20190508: 11 am EDT)

Interviewees: Dedra Chamberlain, Lucy Lynch, Arnout Terpstra, (Laura Paglione too, but late)

How long have you been involved professionally with research, scholarship, or education?

Dedra: 16-18 years - led IAM at UC Berkeley, now in commercial space with Cirrus Identity

Lucy: in R&E since 1993: U Oregon supporting research computing needs, then ISOC - Identity Commons, Kantara; Network startup resource. Retired by volunteering for IETF and others

Arnout: started at SURFnet six years ago. Product manager in IAM two years ago. PhD work for the last two years - privacy and how things are designed - how things are developed under the

hood and the consequences (lack of understanding via UX of what data the user is giving away and where its going etc)

What is your current role?

See above.

If a representative someone from 10-15 years in the future could answer the questions you have today about how to best support collaboration among researchers, teachers, and learners, what three things would you most like to ask them?

Arnout: Who decides how research should be done: the researchers themselves or those with the money? Work is done via virtual collaboration even though researchers are affiliated with an institution. Who's in charge?

Dedra: People are working on the same topic, but seems there is competition rather than collaboration. What experiences and projects have contributed to people feeling that they collaborated?

Lucy: How do you identify the important problems, how do you allow people into the problem space, and who resources this? How is the group of people brought together?

Tom followup: Do you feel that the current way that folks decide what to work on is under pressure/threatened?

Arnout: Incentive for researchers to behave in a certain way - the more you publish, the better the chances of having a scientific career. The perception is the more you write, the better off you are. But there is value in, say, focusing on one writing a year.

Lucy: This is called perverse incentives - seen in government funding agencies selecting and promoting research.

Dedra: Current emphasis on institution-based research is at risk because of lack of funding at the institution.

What do you value about how research, education and scholarship are conducted?

Arnout: Openness of the whole system, not necessarily open access although that's important. Peer reviewing of results and the iterative process of truth-seeking.

Dedra: Values the fact that there are opportunities to carry on with R&E as a life-long option to focus on.

Lucy: The luxury of time and hard problems. Leads to better work in the long run

What do you imagine as desirable settings for the conduct of research, education and scholarship? What parts of those experiences are most important to you?

Arnout: Freedom. The amount of money being put into the educational system in the Netherlands is being reduced. Rather than focusing on research, time is spent up front deciding how money should be spent. Freedom means that everyone should have an equal chance of conducting their research.

Dedra: Bringing together both people with decades of experience and new people.

Lucy: Mentorship and the permission to be wrong. Replicability and revision as part of the scientific process. Rarer to see this outside an academic context.

What do you fear could threaten those desirable settings or your experience of them?

Arnout: Follow up to what Lucy said. Technology and outsourcing. Young people use the technology but maybe don't understand how it works. Lack of trust in science and its institutions by the public.

Dedra: Authoritarianism and autocracy. People not feeling safe or freedom to research the things they want to - result of findings not being disseminated because they don't align with the message that the propagandists want to sent.

Lucy: Perverse incentives. Outsourcing expertise specifically. Professionalizing something and then not paying attention to it. Mentorship allows both parties to have a back and forth.

Thinking of the values and settings you've mentioned above, which practices, tools, organisations, or infrastructures that support achievement of them should be continued? Do you see those as being sustainable over the next 10-15 years? Are there other practices, tools, organisations, or infrastructures that should be created to support those values or settings?

Arnout: (Admits bias) :NRENs independent of government but funded by public money are essential. If political climate changes, funding doesn't change. This is the ideal.

When he was underage, he couldn't find a free web host. People are now used to free everything, but they don't realize the person is the product.

Question from Alan about paywalls. Arnout: Good question. That excludes a lot of people, only those with money can get the information.data, should have the same rights as others to access information.

Dedra: Focusing on education rather than research. The trust framework model has been very useful and supported the ability of institutions to share content within and outside of those institutions. This is sustainable in larger institutions but have to do better at selling the value prop. Find opportunities where the model applies across the commercial sector.

Lucy: Externalities are going to drive us back to a more civic type of science. Data driven surveillance society another. Civic pressure to fund egalitarian science is going to be more important. This is difficult stuff to get the lever pulled on but will happen. Being more activist about the value of science. +1 Arnout.

Tom: Follow up question: When you talk about where the money comes from, is it about the political circumstances?

Dedra: Material question. Technology needs funding. Catch 22: tensions between things like personal privacy, regulation (government), commercial interest. Civil engagement will be critical for a good outcome.

Lucy: Civic engagement is important here. Public money rather than private enterprise. Economics drive a lot of the [existing] perverse incentives, e.g., stock market. In the US there is an increasing number of commercial organisations starting to provide public-benefit services rather than just looking at the next quarter financials for the board.

Arnout: The consequences of political changes will be bigger than funding changes. But the political changes don't happen very often. The political changes and funding need to be decoupled.

What major professional decisions with long-term implications are you facing at the moment?

Arnout: From SURFnet - for the past couple of years there have been some in the constituency that have expressed the desire to be more in control - they want to make sure that every Euro is well spent - they are trying to get more involved, and influence how things work. But this shortens the time-frame for solutions - this is the opposite of the horizon of the federation in general which is trying to address the need for a longer horizon.

Dedra: What kind of business will Cirrus be in 5-10 years. Pressure to become part of an ecosystem that doesn't support R&E. So, how you support R&E in a competitive business environment is the concern.

Lucy: Easy for me, none! I'm retired! What I choose.

What major constraints do you experience in enabling collaboration among researchers, teachers, and learners?

Arnout: It's about control, e.g., attribute release. The researchers know what should be released and where, not central IT. Makes collaboration harder. Researchers will continue to use a Google login because of these difficulties. Decisions are being made by those who may be further removed from the implications of those decisions.

Dedra: Existing and increasing political restrictions around people participating in collaboration. Getting Chinese researchers to participate is difficult - can't use third-party identity providers. Russia isn't using services hosted on AWS. It is difficult to navigate this landscape.

Lucy: The difference between the high and the low. There are very entitled communities - the 1 percent of the academic universe - and the emerging collaborative communities such as Asian research orgs. Getting people to understand that they are privileged is very hard. This asymmetry between the have-mores and have-lesses restricts the ability to address issues in a comprehensive way.

If all constraints were removed, and you could direct what is done, what would you do?

Arnout: Summary of both Dedra's and Lucy's answers. Make people have meaningful control of their data and having them understand the consequences of their choices.

Dedra: there is a lot of work being done around user data (not blockchain), focus the lens of who owns the data on the person who uses it rather than on the institution.

Lucy: make it possible to inform all individuals about their influence in their community, environment of the consequences of their choices, and could give someone a rolling snapshot of their behavior and resulting outcomes (keep people informed as they make choices), and then allow individuals to make decisions with this information.

Follow up from TOM: Feedback loops - decisions are made, consequences happen, should this be fed back to the systems that provide feedback to the individual - who should be privy to it.

Arnout: the individuals should be the first to see it. Seeing the consequences is not sufficient - failure should be equally valued

Lucy: Modeling from other data sources that look like levers that can move - see your behavior move against other data sources (result vectors)

Alan: Cascade of side effects of change. Even moving to what is recommended or even beneficial can have unintended consequences.
(like google navigation - everyone ends up on the same small local roads)

If we'd like to follow up with you about your answers, would you be willing? If so, please supply an email address.

Arnout:

Dedra:

Lucy: