University of Regina | FACULTY OF ENGINEERING & APPLIED SCIENCE

Community characteristics & orientation

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Community & UN SDG(s):	ACADEMICS / ENGINEERS / PROFESSIONALS INTERESTED IN SDG's PARTNERSHIPS FOR THE GOALS -> TO SUPPORT 16 OTHER SDG's
Date:	STARTED OCTOBER 5 / 2023

Instructions
Research the community you are most interested in exploring using links from the UN Sustainable Goals website (https://www.un.org/sustainabledevelopment/) and others. In your exhaustive research, answer the following.

Community characteristics

Community life-cycle (current state)

Where is your community in its life-cycle?	What you need to focus on:	Special needs
Self-designing Information stage, but with a strong sense of what it wants to accomplish	Contribute ideas to the design. Analyze systematically the implications of their community design for technology, infrastructure, and technology skills.	The broader community of higher education (combing both engineering, STEM, Academia) know that they want to work together to solve the SDG's (just like we are in this class) but lack the community connections / infrastructure to facilitate this - and more importantly they have very different skill sets that together can be combined. For example, a philosopher could decide ethically on the best design/materials/method to use as a solution as opposed to the usual capitalist profit vs losses approach - such as spending a longer time fixing issue in rural Africa since if it breaks help is very far away.
Stable and adapting Just needing some new tools	How much disruption will the community tolerate? How will the new tools be integrated into or affect existing practices?	Engineering (Technical Professionals), and Academia on their own are rather stable and both focus on STGs in their own ways - luckily both of these communities are able to tolerate and accept changes due to their nature of research and academia (especially in the last few decades how much things have changes) - my tools would be integrated well to streamline communication and cooperation of the two - in a seamless and easy way.

Constitution

Diversity: How diverse is the community?

Topic	Your notes

What are the different types of members and what are their levels of participation?	I think Engineers (Technical Professionals), Academics, and Professionals are broken down into subgroups such as software, mechanical, chemical and so on the Academics side we have biologist, chemists, physiologists, anthropologists and so on - and then they are broken down into professionals (with degrees at various levels) and students. - with the most important distinction within the membership would be those wanting a problem solved (askers); and those bringing information to the table (solvers - not sure how we should refer to them at this time.
How spread apart is it in terms of location and time zones?	International, there is Engineers, Academics, and Professionals that have STD problems world-wide and its important to include all of them because in some countries the issues may be known but solutions are unknown.
What language(s) do members speak?	English is the universal language for academia / higher level education, German, French, Chinese, and many more are also common in these communities at this time.
What other cultural or other diversity aspects may affect your technology choices?	Each culture would focus on different issues; especially due to religious reasons - alongside access to technology may not be possible in the places where connections are most needed therefore using mobile applications can have a larger reach.

Openness: How connected to the outside world is your community?

Topic		**Your notes**
How much do you want to control the boundaries of your community? Does your community need	Both private & public spaces	In this digital habitat having a private / public model would be important - I think its good to limit the writing / responding to the private members (verified academics / technical experts) while reading should be open to the public for education.
How does your community need to interact with other communities? Do you need common tools for sharing and learning with them?		The common tool would be the mobile application; members of other communities would be able to download and view all the information - in the future MVP 2/3 they could also maybe signup and message individuals to connect for various other non technical issues / community issues that may be overlooked.

Technology aspirations

Technology savvy, tolerance, & constraints: What are your community's technology interests and skills and patience thereof? What are the constraints imposed by technology factors?

Topic	**Your notes**
How interested is your community in technology?	The community of academics, engineers, and professionals in general are interested in technology (such as carbon capture) - especially the younger cohorts which are generally more involved in SDG solutions which is the community I am targeting.
What is their capacity for learning new tools?	I would say medium; the younger ones would be higher while the older ones would be lower - but most people battling SDG's understand that things must change (including practices / themselves - such as using new tools) to create change.
What is the range of skills? If their interests and/or skills are diverse, could it cause conflict or distraction?	The goal of my tool is to bring diverse skillsets together via partnerships - so I would argue the range of skills is as large as possible. It could cause conflict / disagreements but that would allow for differing opinions and in academia "the best idea wins" and most engineers, academics, and professionals understand that.

How tolerant are members of the adoption of a wide variety of tools?	Very, all of the members in this community use various tools for various purposes - development IDE's, CAD Programs, Discussion boards, Research Portals and much more - but there is nothing specifically designed for SDG goal solutions.
How many technological boundaries are they willing to cross, e.g. sign in to more than one web-based tool, learn to use new tools, or give up old favorites? This helps you understand what level of integration you need.	The community would be willing to try new softwares, applications, and web-sites but would oppose to having to get new devices; for example in places where technology access is not prevalent (sub-Saharan Africa) the only device available may be only a mobile phone with a cellular connection - phones (and various apps on them) are so ingrained into our world-wide culture it makes it much easier to introduce more tools on top of those devices.
What are your members' technology constraints (e.g., bandwidth, operating systems, etc.)?	Bandwidth and access; worldwide not every place has 24/7 access to internet technology therefore it would be beneficial to allow for a "saving feature" for threads / information - in addition a low bandwidth application (for download and usage) could alleviate financial concerns of users in some countries - and again not everyone has access to computers - in some countries people only have access to mobile phones with pre-paid data plans.
How much time are members able to be online and from where (office, home, field)? Some people have limited online time, or are able to be online only in specific locations. Others are always on. Very diverse situations can affect participation	Variable, this would really depend on a members personal situation - but involvement in this community would be considered as research or partnership to serve SDG's therefore a substantial amount could be spent adding, using, or improving the information or ideas present - since I am aiming for an international community - cultural and environment factors would also influence the time and locations at which members could be online - I am not treating it as a concern if the community values the tool people will find time to use it.

Community orientation

Relevance to community: Use the range from 0 (no relevance) to 5 (high relevance) to determine what matters most to the community. Look at these from the perspectives of the different types of members (under "constitution"). Also discuss the "value-added" to each member group

0	1	2	3	4	5	Orientations	Variants	Key activities/your notes
0						**Meetings** Many communities place a great emphasis on regular meetings where members engage in shared activities for a specific time. Meetings, and the visible participation of members, assert the community's existence	Online synchronous	This is not exactly what we need; at some point adding tools or platforms to facilitate online synchronous meetings may speedup discourse or discussions but then there is no written record - so currently unsure. This is not a large value adder to the community.

					5	**Open-ended conversation** Some communities maintain ongoing conversations as their primary vehicles for learning. Open-ended conversations are common when a community is co-located and people keep the conversation going as they "bump" into each other.	Single-stream discussions	For my tool, I think Single-stream would be the most important aspect due to my solutions wanting to focus on facilitating solutions for single problems; not super abstract thinking that academics might be used to - but looking at an actual real world problem and finding a practical solution for it. This is a extremely large value adder to both professionals and students since it allows for great solutions to be fostered.
				4		**Projects** In some communities' members want to focus on particular topics, go deep, and collaborate on projects to solve problems or produce useful artifacts. Learning is not just a matter of sharing knowledge or discussing issues. Members need to do things together in order to develop their practice. Projects usually involve a subgroup within the community	Project teams	For this community project teams would be with a more of a "collective focus" the idea is people with the correct skill-set on an issue would be able to add information, ideas, and advice into the "project" of solving a specific SDG issue; for example trying to get a ground well to work after damage in central Africa - with as little resource usage - being very creative. (Maybe no correct tools available at all?) Again, a huge value adder since its able to informally facilitate projects with various parties involved - the informal nature allows for flexibility.
		2				**Content** Some communities are primarily interested in creating, sharing, and providing access to documents, tools, and other content. Valuable and well-organized content is a useful resource for members	Open self-publish	Self-publish would be more or less reflected with my solution - since any individual would be able to publish their additional information on an issue - this would be a rather large value adder for askers; while solvers not as much.

					5	**Access to expertise** Some communities create value by providing focused and timely access to expertise in the community's domain, whether internally or externally. Communities with this orientation focus on answering questions, fulfilling requests for advice, or engaging in collaborative, just-in-time problem solving	Questions & request Access to experts Shared problem solving	This idea of access to expertise is the main focus of my project; the idea is to connect experts from all walks of life together to focus on issues that work together towards solutions to the various SDG's that impact the world - people would be able to ask problems, and request solutions from experts in a shared problem solving environment. Largest value adder thus far; its the only reason askers exist in the community - they want to be able to solve these problems with expertise in the best way possible.
	1					**Relationships** Some communities focus on relationship building among members as the basis for both ongoing learning and being available to each other. This orientation emphasizes the interpersonal aspect of learning together. Communities with this orientation place a high value on knowing each other personally, emphasizing networking, trust building, and mutual discovery	Connecting	Relationships are not extremely important; but they will be made - it can be argued that a the connecting of all these stake-holders in the community is what would fuel its ability to actually bring useful purpose to the broader international community; these connections done for the community - not a large value adder for any portion of the community.
			3			**Individual participation** Learning together happens in the context of a group, but it is realized in the experience of individuals. People bring different backgrounds, communication styles, and aspirations to their participation in a community. People have different levels of commitment, they take on different roles, and they use tools differently	Levels of participation Multi-membership	For the community of SDG professionals there would be various levels of participation depends on personal situations - in many cases people would be apart of their larger community for example software engineers would be a part of the software engineering community, psychologists of the psychologist community and so on - the value added here is members of the community are retained better since people do not feel "forced" to be a part of it but rather compelled to be apart of it "to do their part".

				4		**Community cultivation** Some communities are happy with loose self-organization and unplanned evolution, while others thrive on attention to community cultivation. They have a need to reflect on the effectiveness and health of the community to make things better, joined with a willingness to work on it	External facilitation	In general I think the community is facilitated by the external group of the "United Nations" since that is the organization that decrees the goals in addition to funding the research and development of them - overall it is not even close to enough funding. The value added here is the external organization is very established and therefore the foundation of the SDG's and their legitimacy is well received.
		2				**Service context** In some cases, serving a specific context becomes central to the community's identity and the ways it operates. They may live inside an organization, whose charter their practice needs to serve. They may have a mission to provide learning resources to the world or to recruit members widely. Or they may seek interactions with other communities whose domain	Public mission	This is definitely a public mission; the communities main focus is to help, preserve, and save the public from various issues such as climate change, pollution, water scarcity and much more - the value added here is again the askers are able to request solutions to support the broader public on their mission.

Scratchpad (other interesting insights, questions/answers, etc.)

In general the tool has one purpose - to create partnership between the engineers, academics, and professionals (interested in SDG) in the world to solve as many of these SDGs as possible. This would be done in a open environment where structured discourse would be encouraged alongside a strong sense of camaraderie since these SDG issues are a danger to individual lives, countries, and the world as a whole.