Early Usecases.0.1

NOT UP TO DATE

These usecases have been developed in the early P4All research phase and are not up-to-date with the most recent P4All discussions.

(Sam, Pat, Dani)

Pat

Pat is a 13 years old girl who is moving to a new foster home and consequently transitioning from one school district to another, one month prior to end-of-year assessment. Pat is beginning to feel disengaged from formalized learning and she feels more passionate about bats (Stella Luna was a favourite childhood book). Her fatigue increases over the course of day and it becomes more difficult for Pat to write, speak and read. She uses voice recognition, screen reader, alternative pen grip, joystick, adjustable track pad. Transferring to a new school means re-training of Pat to use new brand of AT. She wants learning related to her passion (bats) and doesn't want to be identified with disability or special needs and take test at a different schedule than the rest of the class. She needs to use needs and prefs more (or different ones) as the day goes on. Pat hopes to fit in the new school, learn more about bats, builds a bat house at home and finally passes the test!
The administrators at her new school also try to determine where to place Pat and they hope she gets good scores and finish this year successfully.

Scenario 1:

- Once transferred to her new school, Pat is informed about P4A during her orientation.
- She checks out the platform to find out what it can offer to her.
- After getting the intro, she moves to the main platform and searches for the game based processes to learn how to use new AT.
- She notices some relevant past and ongoing projects but nothing is matches her requirements.
- While browsing projects and discussions, she realizes that people may ask for what they want and they may be able to get it made.
- Pat creates an account and specifies her needs.
- She instantly gets connected to a matcher and with his help they create a call to action for Pat's request.
- She gets connected to a developer who is willing to modify one of his games to meet Pat's request.
- The developer and Pat discuss the project and give each other feedback via P4A until the game is ready.
- While the project is being developed, Pat is also recommended by her matcher to join a specific group that is developing a screen reader technology to give them feedback and talk about her past experiences.

Scenario 2:

- After Pat got her game based tool, she can still continue being part of the discussions.
- She is also asked to give feedback and participate in R&D opportunities related to AT.
- Whenever a person with similar needs joins the system, Pat is asked to offer some mentorship or advise
- She is also notified when a course or content about bats or her other interests becomes available.

Dani

Dani loves watching Toronto Blue Jays baseball with her mom and dad, playing fetch with her Golden Retriever Bud, and any kind of game (particularly Connect 4). Dani just turned 18 and just finished school. She is about to move out of her parents' house and into an assisted living and rehabilitation center. Dani is excited about moving out of Mom and Dad's house, is excited about meeting new people at the center, and is a bit nervous about all the change.

Dani experienced a traumatic brain injury when she was 6. She's been going to a special ed school where she had a team of teachers. Her teachers would work with her on a computer set up by the school. The computer had some settings that helped Dani see, read, and understand the content. Though she has some trouble seeing on the right side due to a peripheral vision field cut, Dani enjoys looking at pictures. Her teachers adjusted her lessons to reflect this, so Dani did mostly picture-based learning.

Dani's other activities at school were also tailored to her needs: she is able to read 3-letter words and her vocabulary is at an approximately grade 3 level. Dani is pretty shy about talking because some people have trouble understanding what she's saying, so her teachers would often encourage her to sing. Dani knows almost all the words to "Happy Birthday," and she likes to sing and move her body to the sound – it helps with some of the spasticity in her arms and back, and it makes her happy.

When she moves to the assisted living center, Dani will have a TV and a computer of her own in her own room. Those devices will be different from the TV Dani is used to watching ballgames on and the computer she had configured for her at school. Dani can't take those devices or settings with her so she's going to have to learn a new system. That's stressful, because Dani has some trouble focusing and trouble remembering things like order-of-operations (executive function) tasks.

The assisted living center balances structured therapies (OT, PT, SLP, and computer lab) with recreational activities (cooking class, music class, and outings) and encourages residents to be as independent as they're able to be. Dani will be encouraged to make some decisions. Because the center isn't as structured as Dani's school was, she's going to have more opportunities to decide how she spends her time – how she structures her days and weeks. Dani plans to go home on weekends to visit her Mom and Dad, and Bud too.

Scenario 1:

- While moving out of her parents, Dani wants to become financially active but she does not know how.
- She makes her caregiver aware of her notion and asks for advise.
- Her caregiver who has previously helped other members to get connected to P4A, shows Dani the platform and what can be done over there.

- Dani shows interest and with her caregiver's help, creates an account describing all her needs, and skills and what she can contribute.
    - If there are available projects, she receives a notification from a P4A matcher that offers Dani 2 different projects that she can choose from.
    - If there are no current projects that match Dani's skills and needs, P4A matcher tries to offer her interesting training programs personalized for her in order to better prepare her for future opportunities.
- If matched with projects, Dani can start participation and and communicate her progress via her caregiver's assistance and get feedback from the project's consumer.
- Once completed, she receives financial rewards from P4A. If she agrees, she can remain in the list of people who can be matched for relevant projects.

Sam

Sam is an artist and an instructor at a local art college. She teaches three classes per week, and spends approximately 20 hours outside of teaching marking papers, preparing her lectures, and updating the online forums for her classes. Outside of her teaching duties she dedicates about 15 hours per week to her art practice, including online research. Sam makes a point of going to see local art shows at least once every two weeks. In her spare time she enjoys going to the theater and to movies with her partner, reading fiction, taking walks in her neighbourhood, and shopping for vintage clothing with friends. In the morning she often goes to her favourite coffee shop where she reads or catches up on emails. Occasionally she meets a friend for coffee.

Sam uses a her laptop on a daily basis to organise images of her artwork, to keep her website up-to-date, to manage email and to give slide presentations in class. She also has a desktop computer at her office, with a joystick, that she uses when she is at the college to manage her courses, including grading papers from students and managing her online course forums. She does not currently have a smartphone as she found the small touch-screen difficult to use. She has been considering getting a tablet though, because they are lighter than her laptop and easier to carry around, and she knows she could use it for her lecture presentations. Sam's sister lent her one to try out a few days ago but she has not used it yet. After her smartphone experience she is worried that she won't like using the touchscreen, but her sister offered to help her set it up in a way that would make it easier for her. They have agreed to meet up on the weekend to do so.

Sam usually goes to the coffee shop every day around 9:00 am. She likes to avoid the early morning rush of people on their way to work, since when the coffee shop is too crowded she finds it difficult to maneuver freely in her wheelchair. This morning Sam has some emails she needs to respond to. After she gets her coffee and wheels over to her table, Sam gets out her laptop from the pouch at the side of her chair. She stores it in a sleeve which has a stiff handle that she keeps sticking out of the top of the pouch. The handle allows her to grab the sleeve and pull it up from the side of her chair more easily. Once on the table she slides the laptop out of its sleeve and sets it up. Sam gets out her type-aid from the side pocket of the sleeve and straps it to her right hand. The type-aid allows her to type on the keyboard more quickly and with better accuracy than would be possible with her hand alone. When she is using her laptop she relies on keyboard input alone as she does not use a mouse. Sam prefers to use speech recognition rather than typing, but isn’t comfortable doing it in a public place. She also occasionally likes to use text to speech because she likes to give her eyes and neck a break from looking up at the monitor, especially when reading long research papers.

Scenario 1:

- Sam is informed about P4A via an email received from her college.
- Once she is at the coffee shop, she decides to check out the platform to find out what it is about.
- Upon launching the platform, she is welcomed and get a simple and engaging intro about P4A.
- She feels interested and wants to know more. Thus, she continues to next step and quickly browses the calls to actions, challenges and discussions that are posted on the platform.
- While browsing, she notices a discussion regarding a challenge for Art education, an area that she has built some expertise over many years of teaching Art.
- She wants to be part of the discussion, thus, she creates an account and specifies her skills, needs and what she can contribute.
- After creating her account, she goes back to the discussion group to actively participate in the conversation.
- After a few days or instantly (depending on how the matching system works), she receives an email from a P4A matcher to discuss opportunities for building an appropriate content (Course/ Curriculum/ Training program/ etc.) with Sam's help to address an available call to action on the P4A platform.

Scenario 2:

- Once Sam starts building the proposed content, she realizes that she can't contribute more than 5 hours per week.
- She discusses the issue with her matcher (via email/ chat/ notification) to make him aware that she needs some extra help.
    - Matcher who has access to a data base of available source (Volunteers/ Hobbyists/ Amateurs/ Freelancers), finds a person who has relevant skills and abilities and connects her to Sam.
    - If matcher can't find the right person on his data base, he creates a call to action and post it on the platform to see if there are any volunteers interested.
    - Sam creates a call to action for her need and after it's approved by the matcher, it will be made available on the platform in order to find volunteers to help her out.
- After a few days, she will get connected to a volunteer.
- They will collaborate online and Sam is able to finish building the content on time.

Scenario 3:

- Sam's content is now available on P4A and some people are using that.
- Sam gets constant feedback from her participants, so she is able to dynamically improve the content and make it more relevant and accessible.
- Through these discussions, Sam has met some new peers who are interested in the same subject. So, they are planning to collaborate to build a new training program and respond to some other challenges that are discussed in the group.
- They create this call to action on P4A and invite other experts to join their team in order to start planning and building the content.

(Jad, Ellie, OSPF, Sean, Sam)

Jad is an artist and maker. He has a background in sculpture and over the last two years has gotten into 3D printing. Jad received his 3D printing certification from his public library, has taken a number of workshops and collaborated on a few projects at his local maker space. Jad wants to use P4A to find individuals for whom he can build custom prosthetics. He is interested in the idea of making voice activated prosthetics that could perform commands but doesn't know how to go about creating something like that. He wants to talk to programmers who would be interested in working with him to develop his idea and learn more about what has been accomplished in the field. Jad has experienced several depressive episodes in the last decade. His therapist noticed that these are typically triggered by intense stress. To avoid triggering his depression, Jad likes to work from home at his own pace and prefers to spend most of his time working alone. He enjoys interacting with people online to talk about his interests and his work.

Scenario:

Jad creates a profile on P4A. He enters his name and adds details about what he can contribute to the community. He indicates that he has a background in sculpture, is proficient in 3D printing, has experience with photography, and has strong visual communication abilities. Jad notices that he can add badges to his profile. He doesn't have any but wonders if he could include his 3D certification from the public library as a badge. Jad adds a few photos of work samples he has done and a link to his website. Jad notices the 'products and services' section on his page. He checks the 'about' section and finds out that this is the section through which he can find consumers for his work. He adds '3D printing, prosthetics, photography, sculpture' to his products and services section and selects his compensation. He choses an hourly rate. Jad has the option to create an individual page for each of his products and services but chooses to the keep them as list items for now. He hopes to eventually create a product page for his custom prosthetics.

After he finishes creating his profile he spends about 15 minutes browsing the site. He notices the groups section and explores further. He uses the search term 'prosthetics' and finds two groups. The first is a group focused on materials, the second is a group of people who use prosthetics where people discuss their experiences and products that they are looking for.

Jad enters the second group and posts on the group home page. He introduces himself and indicates that he makes prosthetics. He asks if anyone in the group uses voice-activated prosthetics. He then decides that it might be worthwhile to see if the discussion section has something on the topic.

He looks for 'voice activation' in the discussion but doesn't find anything. He creates his own discussion topic with the title 'voice-activated prosthetics'. He writes a paragraph about his work and how he wants to learn more about making voice activated custom prosthetics.

Four days later Jad receives notification that someone has responded to his post in the prosthetic wearers group. He goes to the website and finds that someone has posted that they have never tried voice-activated prosthetics but are very interested in the project. Jad does a bit of online searching and finds an article on the topic. The article discusses a voice-activated prosthetic arm that was built using a 3D printer and an Arduino pack, an open source electronic platform. Jad has never used Arduino but is interested in finding someone who has. He posts the article in the discussion he started.

Jad does a quick search in the "Training and Certification" section. He finds a 4 week certification course in Arduino basics and enrolls.

While Jad completes his course, he goes back to the discussion board and prosthetics group to speak with users and developers. He meets a few people who are interested in voice-activated prosthetics in the group and asks them to join the discussion. On the discussion board they talk about the types of functionality that are most important to them in such a product. He also joins a group of people working with Arduino to learn more about different projects and the platforms functionality. He uses the group to share his work in the course and exchange ideas.

Four weeks later Jad completes his course and receives an Arduino certification badge. He decides that he now has enough basic knowledge but wants to work with someone more experienced to develop the project. While working on his Arduino certification he receives several inquiries about his 3D printing and photography work and takes on a few clients. He creates several custom prosthetics and takes product photographs for other producers in the community.

Jad hasn't had a chance to look at the projects section yet and decides to give it a try. He finds many projects that are looking for funders, programmers, designers and manufacturers, among other things. He does a search for 'voice activation' and 'prosthetics' but doesn't find any projects that meet his interests. He decides to create his own.

The project page contains a (1)pitch, (2) looking for, (3)collaborators, (4) interested parties, and (5) mood board sections. Jad is asked to create a (1) pitch for his project. He writes a paragraph about what he wants to accomplish. He notes that (2) he is looking for programmers who are experts in Arduino as well as funders for the project. He (4) adds the people he met in his groups and discussions that expressed interest to the 'interested parties' section. He includes the article he found and a few samples of prosthetic designs he has seen in his research on the mood board. (3) His collaborators section only includes him at this point. When he finishes the project set-up, a notification window asks Jad if he would like help matching his project with P4A community members. He clicks yes.

The next day Jad receives a message from a matcher asking him for details about who he is looking to add to the project. Two days after that Jad gets a message from a matcher. The email contains the profiles of 3 community members, two have extensive background experience with Arduino, the third has some experience and is very interested in working with prosthetics. Jad reviews their profiles and decides to send invitation to his project to two of the members. One member responds shortly and joins the list of collaborators on the project.

Jad also receives notification that a member has applied to join the project directly. Jad reads her message and reviews her profile. This member has no experience with Arduino but has worked with voice recognition software in the past.

After a couple of weeks Jad finishes putting together the team for his project. On the project page he indicates that they are not looking for additional team members for project development but are still looking for funders.

6 months later, the project team has developed a prototype of a prosthetic arm that they would like to test. Throughout the project, the team was able to gather feedback and thoughts from interested parties and conduct some research in the discussion and group sections. The team was unable to find an organization that would fund their project but they were able to crowd fund 10,000 dollars to start by linking his project page to a crowd funding platform and advertising the product in discussions and groups. The team gathers feedback and makes adjustments.

3 months later, the team has a product that is ready to be distributed. They create a product page. Jad takes a few photos of their polished prototypes and specifies in the product description that the prosthetics are made custom to order. The team decides to hire the services of a videographer in the community to create a video about their product.

Other use cases:

]**Ellie** is visually impaired. She has recently heard a TED radio hour episode about Neil Harbisson who has had an antenna installed on his head that translates colours into sound frequencies. Ellis wants to know if she can purchase something like that, and is also interested in knowing what other devices are available to her. She wants to be able to search the website and stay updated on new technology.

Requirements:

- Browsing/Search function available in in auditory format.
- Option to subscribe to specific type of content (through either a group or a discussion).
- Ability order a product/service online and to contact community members directly to learn more about products.
- Ability to provide payment online.
- Ability to communicate with other community members through the platform.

OSPF is a large financial investment organization. As part of their value framework, OSPF gives a certain amount of money each year to bright and promising entrepreneurs. They would like to use P4A to find projects that they could contribute to. They need to be able to browse available projects and products easily, and search specifically for projects that are actively looking for financial backers. They then need to be able to contact producers and other involved community members, and contribute funding (possibly through a crowd funding component or link).

Requirements:

- Project/product section where individual can search by key term or browse by category or project requirements (ex. so that it's possible to only view projects that are seeking funders).
- Summary of each project that gives viewers a comprehensive understanding of the idea, involved parties, feedback, interest in the project and project status.
- Ability to contact project leads directly
- Ability to provide funding (linked to an external funding platform or embedded within website).

Sean has a child with mild/moderate hearing impairment. He wants his daughter to take music lessons because his daughter loves music and because he has heard that music training can be helpful for people with hearing impairment. He has also heard that traditional hearing aids are not very good at amplifying music and that even the ones that have music specific programs can be problematic. Sean wants to learn about products or hearing aid programs that would be helpful to his daughter. He wants to involve her in the process and work together with her and the hearing aid manufacturer or programmer to best suit her needs. Sean has also been tinkering with hacking projects over the last couple of years and is interested in applying his skills in the field of accessibility. He wants to learn some programming skills that will allow him to experiment with his daughter's hearing aid settings and possibly use these to contribute to the P4A network in the future. In addition to finding products for his daughter, Sean wants to find musicians with hearing loss that he can speak with to learn more about playing music with hearing loss.

Requirements:

- Ability to browse search products by subject (hearing impairment, music).
- Ability to contact producers directly
- Ability to initiate projects if none that address his daughters needs exist.
- Access to educational resources.
- Access to discussion boards and community members.
- Ability to contact producers to discuss needs.

Sam works for at a hands-on project based code learning startup. They are looking to find more students and advertise their classes. Sam wants to create a profile for her organization on P4A that would offer courses and also teach project-specific workshops for teams with specific needs. She want to offer different levels of certification to their students.

Requirements:

- Ability to advertise company, courses and classes offered.
- Course sign up online
- Payment options online
- Ability to provide badges to course graduates.
- Ability to receive inquiries from perspective students about specialized workshops.
- Access to community for the purpose of developing curriculums and courses to better suit community needs.