

CHALLENGE 2: AUDIENCE SPECIFIC PRODUCT PROTOTYPES

We want to develop new product ideas with potential to engage three core audiences:

1. **Explorer families** (families with young kids)
2. **Urbanites** (city dwellers, using social technologies and living in increasingly urbanised environments)
3. **Adventurists**

Can we design and prototype product concepts with the potential to engage these groups in noticing nature/participative science that we can test and learn with these audiences as pilots over the next 3 months?

AUDIENCES 1 and 2: EXPLORER FAMILIES and URBANITES

Background and Context

Explorer Families

Explorer families are families that actively play and learn together. Parents are looking for quality time and great family experiences where they can introduce new ideas. Nature is a big part of life for these families, with walks and play in gardens/parks and woods supplemented with occasional trips to a destination. There are around 6 million such adults across the country and the audience grows if you include grandparents.

From talking to explorer families and professionals who work with kids, we know that they are looking for projects that can involve the entire family, with tasks that will engage kids as well as adults. Technology is sometimes a concern. Many parents are unsure about projects that include too much tech as time in nature is often seen as time to escape screens. Kids themselves can sometimes be a bit hesitant to start but once immersed in nature, they get it. They seek out real knowledge and love discovering things on their own so long as the project doesn't feel like school-work.

Families with young kids (under 10) lot of interest in being outside but often lack imagination or ideas where to start. Looking for fun, simple, playful ideas designed around both kids and parents is key - something for everyone to do. Role of content and stories to inspire is key. Need updates and nudges. Open to the idea that their contributions are helping a bigger issue.

WHY: Use your walk in the park/hunt in the edgelands to help scientists understand what's happening in the places you love.

NEEDS: free/cheap. Loosely structured, easily accessible, roles for everyone, some Wow!/Awe is useful! Fun and playful.



ROLES: recording/data collection, unstructured the better, no expertise needed

Urbanites

82% of Britons live in urban areas with over 35 million Britons living in cities with over 100,000 people. While the mix of people contained within urban populations is diverse, they do share a number of characteristics that make them an interesting audience for the NIU. They enjoy the highest levels of connectivity in the country and smartphone usage is high, as is use of significant social media applications such as Instagram. From a natural perspective, urban populations - and large city residents, in particular - are much more likely to feel separated from nature or that nature does not exist for them in a meaningful way on their doorstep. Parks and hinterlands are their closest points of access.

For those that we spoke to, nature is important but often neglected - they need a prompt to start noticing. Exercise and weekend wandering takes people out doors. Green spaces and the need to protect them came up as a resonant challenge. Big users of social technologies. Capturing 'life' through tweets/photos/Facebook etc - need hooks that can integrate with current behaviours. Increasing fear over climate change, pollution, air quality, wellbeing and lack of green spaces.

WHY: Use your walk to work/lunch break/to help scientists understand what's happening in the places you love while helping you to chill out

NEEDS: Simple and interesting tech/design for spotting/collecting/recording, mindfulness angle to noticing nature, place based instructions/tutorials, something which can easily fit into current life/behaviours. Integrated into existing social channels.

ROLES: recording/data collection via photos/videos/hashtags/texts/tweets/

Questions to consider

- What can we learn from existing nature based citizen science projects aimed at these audiences, can we harvest the intelligence at the Swarm to help here?
- What works well?
- What fails?
- What can be hacked/remixed/re-packaged?
- Should we take existing projects targeting these audiences and give them a makeover to show how they could become more relevant and exiting to wider audiences?
- How do we design a product prototype that can easily fit into their existing behaviours, but also has potential to capture meaningful/useful data for scientists?



- Nature is thriving in cities, London has between 16,000 and 18,000 species - one of the most biodiverse places in UK, it's happening everyday all around us - how do we help urbanites 'tune into' this?
- With the boom in interest in mindfulness to cope with stressed urban lives, is there potential in 'noticing nature' (an ancient mindfulness approach) to be more interesting alongside meditation apps?

OUTPUTS

Create a set of design principles needed when designing participative science/nature intelligence gathering products for each of these audiences.

Design and prototype a product(s) for Explorer families for use in parks, gardens and urban edgelands.

Design and prototype a product(s) for Urbanites in the city and urban places and spaces.

- What would it look like and feel like, what would it be called?
- What's the role for physical product design e.g. sample collection (water/soil/plant/species), what already exists that we can use/hack here?
- The role for place based experiences e.g. Bioblitz etc.
- How it would work as a digital product e.g. how to engage and communicate to user via email/social channels etc.?
- Role of tech and mobile in the experience itself?
- How to be informed of challenges/tasks from science community?
- How to feedback on mission/sample/data etc.?
- The role of content to record experience e.g. photos and videos that can be shared back to the communities to encourage more engagement and awareness with NIU etc.?
- How would a product work based on intrinsic values only e.g. you are helping to protect a species or habitat that you love?
- How would a product work that also offered extrinsic values e.g. rewards, recognition, etc.? (see Good Gym stimulus)
- Can we identify a range of partners that might be interested in supporting/communicating/funding the pilots?

Stimulus and Inspiration

- The role for hardware, photos and digital making



- <http://naturebytes.org/>
- Projects currently engaging kids/families
- <http://www.ispotnature.org/communities/uk-and-ireland>
- <http://www.bnhc.org.uk/bioblitz/>
- <http://www.projectnoah.org/>
- <http://www.sciencealert.com/watch-this-antibiotics-research-kit-turns-kids-into-citizen-scientists>

Extrinsic vs Intrinsic motivations

- www.goodgym.org

AUDIENCE 3: ADVENTURISTS

What if we could reach out and engage outdoor enthusiasts who spend lots of time in hard to reach habitats to become part of the Nature Intelligence Unit? Create, design and prototype an engagement product for adventurers.

Background and Context

Our hunch is that there is a new wave of adventurers (surfers, Kayakers, SUP's, trail runners, climbers, anglers, mountain bikers wildlife/nature photographers) who are not only deeply connected to nature but feel an increasing responsibility to protect it. And through their pursuits have a deeper awareness of change that is happening. Keeping these habitats healthy is critical for the future of their pursuits and activities.

WHY: Use your run/surf/climb to help scientists understand what's happening to nature in the places you love.

NEEDS: Simple to use tech and kit for collecting/recording, place based instructions/tutorials, something which can easily fit into sessions.

ROLES: Data collection, samples, photos, videos,

Questions to consider

- Could we find simple ways to help them gather and collect useful data samples and to monitor and observe different hard to reach habitats on a regular basis which could be valuable to scientists?
- Could they also help to raise awareness through their networks of the idea that we all have responsibility to look out for and look after the natural world we get so much from?

OUTPUTS



- For this challenge, prototype a participative science product designed around a range of adventurers? e.g. Surfer, Trail Runner, Climber, Angler, Mountain Biker, Kayaker, Photographer etc.
- Identify biological recording tasks in specific habitats that could be delivered by an adventurer product.
- Design how the product can easily fit into their activities, but also has potential to capture useful data for scientists.
- What would it look like and feel like, what would we call it?
- Explore the physical product design e.g. sample collection (water/soil/plant/species), what already exists that we can use/hack here?
- How would it work as a digital product e.g. how to engage and communicate to adventurers via email/etc.?
- How to be informed of challenges/tasks from science community?
- How to feedback on mission/sample/data etc.?
- The role of content to record experience e.g. photos and videos which can be shared back to the communities to encourage more engagement and awareness with NIU etc.
- Can we identify and contact core potential test users for pilot stage e.g. Surfing, Trail Runners, Mountain Bikers, Kayakers, Anglers etc
- Can we do a short interview with them and get them to agree to testing prototype?
- Can we identify and contact a range of outdoor brands that might be interested in supporting/communicating/funding the pilots?

Stimulus and Inspiration

- <http://www.adventurescience.org/>
- <https://www.youtube.com/watch?v=GMXoMilsCXY>
- <http://www.theinertia.com/environment/6-things-at-the-top-of-the-surfrider-foundations-2016-to-do-list/>
- <http://www.sas.org.uk/news/campaigns/scientists-and-surfers-team-up-to-assess-antibiotic-resistance-risk/>
- <https://www.youtube.com/watch?v=3MEqMaGF35s&feature=youtu.be>

For science recording challenges:

- BSBI (botanical society of Britain and Ireland, <http://www.bsbi.org.uk/>),
- British Bryological society (<http://rbg-web2.rbge.org.uk/bbs/bbs.htm>),
- British lichen society (<http://www.britishtichensociety.org.uk/the-society/lichenologist>) for potential target species/habitats for mountaineers, climbers etc.
- Invasive water species for kayakers -
- river obstacles <http://naturelocator.org/riverobs.html>
- aqua invader <http://naturelocator.org/aquainvaders.html>

Check out the related stimulus on the website: <http://www.natureintelligenceunit.com/challenge-areas-swarm/2016/2/9/challenge-2-audience-specific-product-prototypes>

