

More-than-human personas

Summary

In this teaching activity, students learn how to identify, create, and employ more-than-human personas in technology design. More-than-human personas can help ensuring that the needs of both human and non-human actors are considered when making design decisions, and when designers do not have direct access to the stakeholders.

Learning outcomes

After the teaching activity students should be able to:

- Identify more-than-human primary and secondary actors in various contexts and situations.
- Create more-than-human personas based on primary and secondary data.
- Employ more-than-human personas in technology design.

Key readings

Tomitsch, Martin; Fredericks, Joel; Vo, Dan; Frawley, Jessica; and Foth, Marcus (2021). Non-human Personas. Including Nature in the Participatory Design of Smart Cities. *Interaction Design and Architecture(s)*. 102-130. 10.55612/s-5002-050-006.

Content

- What is a persona
- What is a more-than-human persona
- Why more-than-human personas
- How to develop more-than-human personas
- References

What is a persona?

Personas are user models that are represented as specific, individual human beings, synthesized from observations and data of real people.

- A persona is not a person.
- You do not look at the entire person but use the area of focus or domain you are working within as **a lens to highlight the relevant attitudes, and the specific context** associated with the area of work.

(Nielsen, 2013)

	Maria is in cluster 6, which contains 6% of survey participants	Competence with technology*	Use of technology*		Attitudes to technology*	
			Frequency of use	Range of activities	Desire to engage	Willingness to explore
		Low (4.0/8)	Very high	Very high	High	High

Lifestyle

Maria owns a small clothing shop, sourcing, altering and selling vintage clothes. She is divorced, with children in their twenties. Her youngest daughter lives at home with her but hopes to move out soon.

Competence with technology

Got five (just over half) of the performance tests correct, though she had to guess on one of them.

Use of technology

Uses a computer, smartphone and tablet most days, both to run her business and for personal use. She does most of the technology activities asked about in the questionnaire, except for computer programming. She particularly relies on e-mail, internet search, internet shopping and banking to run her business and does these primarily on her computer. Social media is also very important to her work and she often uses her smartphone or tablet for this. She is competent at file management and installing software on her computer, smartphone and tablet.

Physical and sensory capabilities

No particular physical or sensory capability losses.

Attitudes to technology

Maria isn't interested in technology for its own sake, but still has a tendency to actively engage in intensive technology interaction rather than to avoid it. She is willing to try out different things on an interface until something works. If the interface does something she didn't expect, she thinks that she can usually recover from the problem.

Available at: <https://www.inclusivedesigntoolkit.com/digitalpersonas/#Maria>

What is a persona?

- The notion of personas was first introduced by Cooper (2004) as hypothetical archetypes
- Developed as a method for IT system development, product design, marketing, planning of communication, and service design.
- Personas are an effective way to make sense of and synthesise research data, to communicate user needs within the design team, and to keep the perspective of users and other important stakeholders at the forefront throughout the design process.
- Sample personas:
<https://www.inclusivedesigntoolkit.com/digitalpersonas/>



Personas representing non-users of public libraries.
(Photo by Eva Eriksson)

What is a persona?

Elderly Personas

- Based on quantitative data from roughly 12,500 older individuals living in different European countries
- 30 basic personas representing Europeans aged 60 and older coming from three different regions (northern, central, southern) still living at home.
- <http://elderlypersonas.cure.at>



Child Personas

- The child-personas technique provides a way to use theoretical information to create child-user archetypes. (Antle, 2008)

Cogn Tech Work (2008) 10:155–166
DOI 10.1007/s10111-007-0071-2

ORIGINAL ARTICLE

Child-based personas: need, ability and experience

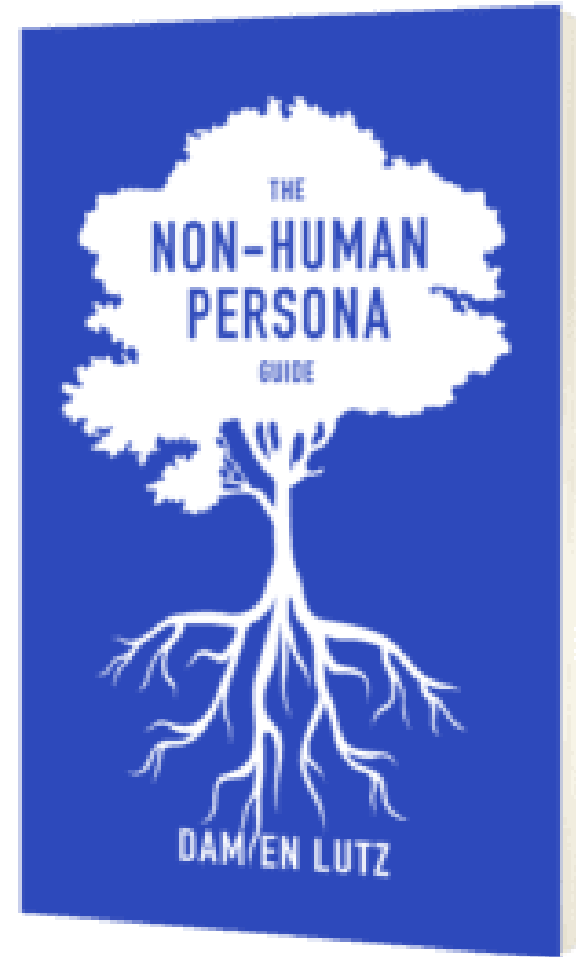
Alissa N. Antle

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Abstract Interactive technologies are becoming ubiquitous in many children's lives. From school to home, technologies are changing the way children live. However, sending children in the design process is the use of rich, realistic and specific representations or abstractions of children. However, child-specific methods for creating

What is a more-than-human persona?

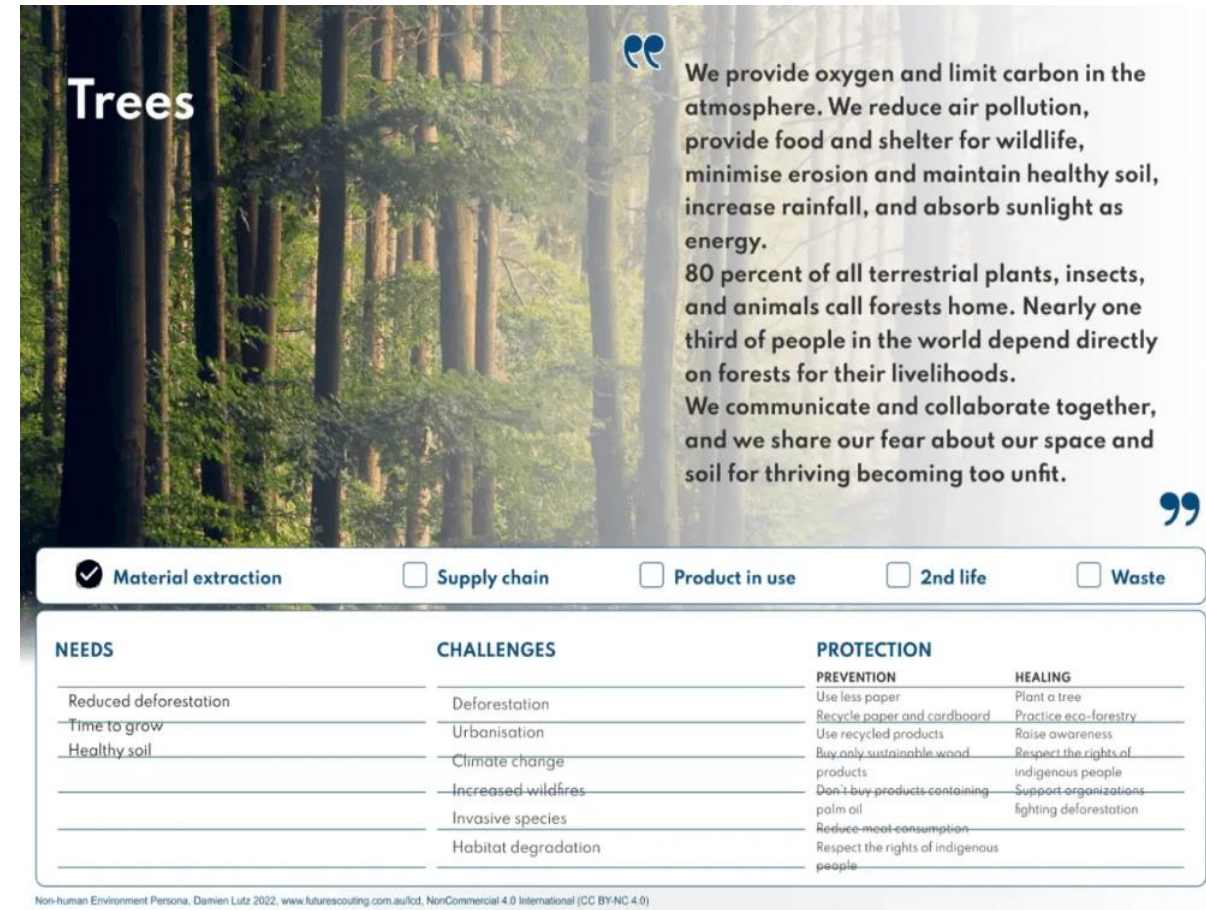
- Various types, e.g., animal, environments, species persona, things, technologies
- Non-human and non-user personas represent the animals, environments, and ‘invisible’ humans (factory workers, miners, farmers, and communities, etc.) impacted by our product lifecycle so that we may design to protect and respect them.



What is a more-than-human persona?

- Like personas, non-human personas are based on research data
 - Collected from secondary and/or primary sources (e.g., contextual observations or interviews with experts).
- Just like conventional personas, non-human personas represent the character, attributes and needs of others within all stages of the design process.
 - They expose and challenge assumptions and provide a means for the design team to represent or speak on behalf of another species or biosystem.
- Evaluating designs from alternate perspectives may reveal both symbiosis and conflict (e.g. prey/predator, farmer/farmed).
 - Even if conflict is not resolvable, these insights can feed into each stage of the design process and ideally lead to a more environmentally considerate solution.

(Tomitsch, 2022)



Trees

“ We provide oxygen and limit carbon in the atmosphere. We reduce air pollution, provide food and shelter for wildlife, minimise erosion and maintain healthy soil, increase rainfall, and absorb sunlight as energy. 80 percent of all terrestrial plants, insects, and animals call forests home. Nearly one third of people in the world depend directly on forests for their livelihoods. We communicate and collaborate together, and we share our fear about our space and soil for thriving becoming too unfit. ”

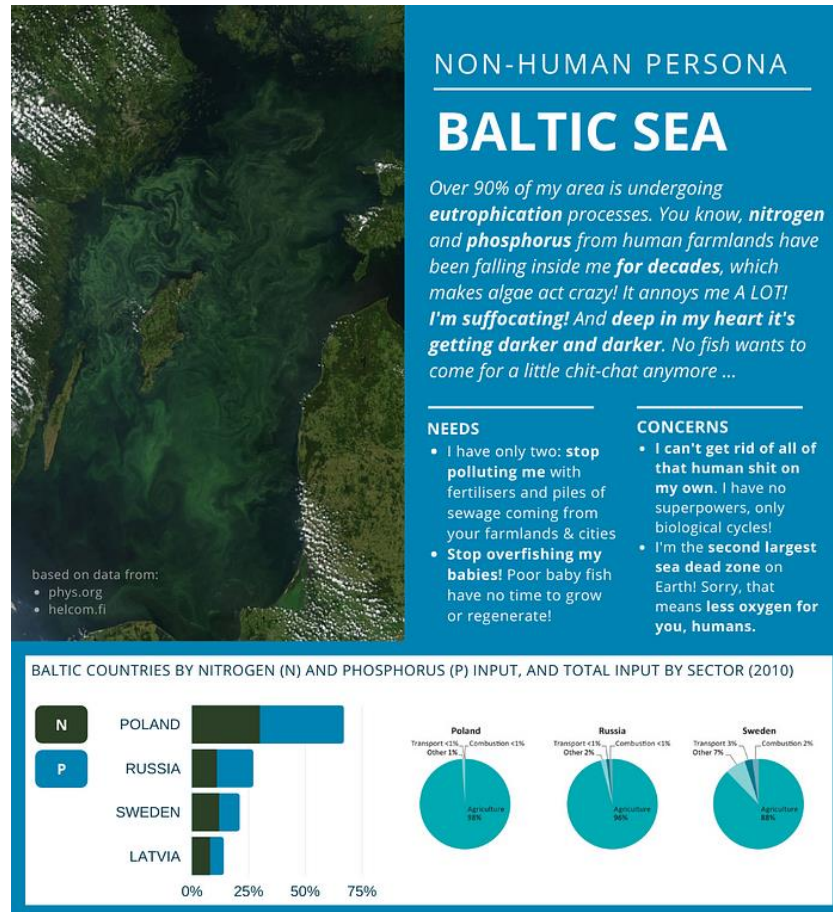
☒ Material extraction
 ☐ Supply chain
 ☐ Product in use
 ☐ 2nd life
 ☐ Waste

NEEDS	CHALLENGES	PROTECTION	
		PREVENTION	HEALING
Reduced deforestation	Deforestation	Use less paper	Plant a tree
Time to grow	Urbanisation	Recycle paper and cardboard	Practice eco-forestry
Healthy soil	Climate change	Use recycled products	Raise awareness
	Increased wildfires	Buy only sustainable wood products	Respect the rights of indigenous people
	Invasive species	Don't buy products containing palm oil	Support organizations fighting deforestation
	Habitat degradation	Reduce meat consumption	
		Respect the rights of indigenous people	

Non-human Environment Persona. Damien Lutz 2022. www.futurescouting.com.au/lcd, NonCommercial 4.0 International (CC BY-NC 4.0)

<https://lifecentred.design/non-human-personas/non-human-and-non-user-personas/>

Example non-human persona created from data



Why more-than-human personas?

- Designers are increasingly asked to integrate nature, biodiversity and other non-human considerations within design.
- Enable designers to expand user-centred design for a more nuanced understanding of both human and non-human needs
- Leading towards a more inclusive design practice.
- Balance social-ecological factors in design.
- Alternative ways of seeing the world.
- Give a voice to non-human actors.
- Possibility to decenter human comfort and convenience over broader ethical and environmental concerns

Why more-than-human personas?

- 'Invisible' stakeholders can have a big impact.
 - Over the past few years, a tiny virus was the 'most important non-human stakeholder of every business and public service around the world' (Sznel, 2020).
 - The COVID-19 virus has influenced how we design interactions, services and systems—for example, avoiding touch-based input controls in public interfaces, prioritising an online delivery first approach for providers of goods and enabling employees to work from home.
- (Tomitsch, 2022)



Bees

I may only live six weeks at times, but I pollinate plants to enable them to reproduce—70% of the world's agriculture and flowering depends exclusively on me. Without me, fauna would begin to disappear, impacting environmental health and human food supply. Humans can not live without me.

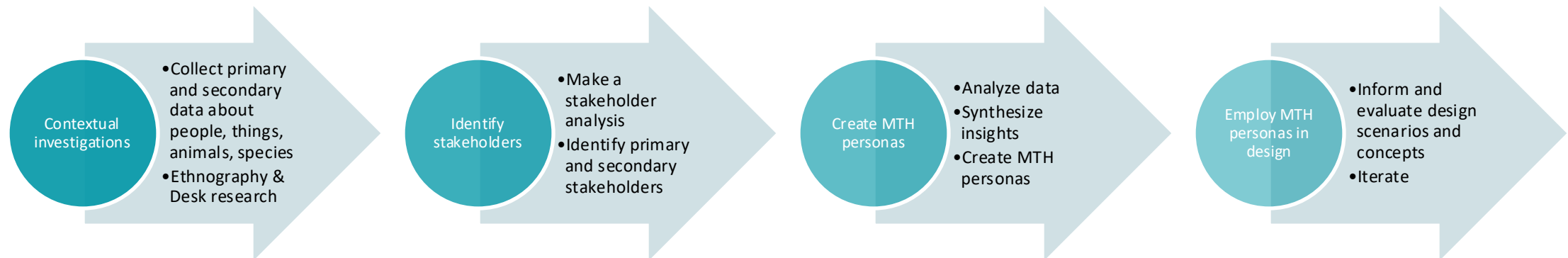
PROTECT	HABITAT We thrive in natural or domesticated environments, but we prefer gardens, woodlands, orchards, meadows and areas of abundant flowering plants. Within our natural habitat, we build nests inside tree cavities and under edges of objects to hide from predators.	NEEDS & JOYS We need water, pollen, and shelter to thrive. Grow more flowers, shrubs and trees, let your garden grow wild, don't use toxic pesticides, and leave water out when it's hot.	CHALLENGES Overuse of toxic pesticides are killing us. Climate change and overuse of land is destroying or safe places to live and breed.	
	☒ Material extraction	☐ Supply chain	☐ Product in use	☐ 2nd life

ENGAGE	ANIMAL EXPERIENCE	HUMAN WORLD
	Navigation <i>Senses, etc.</i> We use the sun, landmarks, and colour to navigate, and our sensitivity to polarised light allows us to 'see' the sun in poor weather. We can also sense the earth's magnetic field with a magnetic structure in our abdomens.	Communication <i>Sound, posture, etc.</i> We use body language and eye contact, and some vocal patterns. Our two primary methods are movement and odor. We use these to send messages throughout the colony, locate nearby food, and share other information. Interaction <i>Climbs, bites to pull, etc.</i> We have 5 eyes, 6 legs, and fly 20mph. Our bodies allow pollen to stick so we can transfer it. We have stingers for protection but die if we use them. Some of us make honey using a proboscis to suck liquid found in plant nectary.

Non-human Animal Persona, Damien Lutz 2022, www.futurescouting.com.au/td, NonCommercial 4.0 International (CC BY-NC 4.0)

<https://lifecentred.design/non-human-personas/non-human-and-non-user-personas/>

How to develop more-than-human personas



Example of template for non-human persona

https://miro.com/app/board/o9J_l2wNzU8=

Non-human Personas

Persona (1)



Name: Beans

Type/species: Brush-tailed possum

Age/Lifespan: 13 Years

Local Population: Estimated 30 million in Australia

Needs/motivations: It's getting harder for Beans to find a home to rest, and sources of food are being slowly replaced by a concrete landscape.

Challenges/stressors: Sometimes Beans is captured by humans and is transported to a location away from where he usually scavenges for food and resides. Being held in an enclosure while Beans is transported and being displaced causes great stress to him. Most of the time, Beans can find food he is familiar with, consuming flora and insects located in gardens and trees around his local area. Occasionally Beans encounters human food and eats it without knowing it may not be healthy for him; sometimes it makes him sick afterwards.

Interacts with the following: Other possums, humans and native flora

Habitat: Beans usually prefers a place high above the ground away from other species that might harm him. The current alternative to a tree to call home is finding small openings into the rooftops of human structures, where he can shelter. Beans does his best to stay out the way of other possums to avoid confrontation, as they are very territorial.

Descriptive narrative of behaviour: Beans is most active at night under the cover of darkness, searching for food. This nightly activity disrupts sleeping humans and this causes them to attempt to scare beans out of their roof or garden.

Non-human Personas

Structure guide



Name:

Type/species:

Age/life span:

Local population:

Needs/motivation:

Challenges/stressors:

Interacts with the following:

Habitat:

Descriptive narrative of behaviour for one [hour/day/month/year] select one:

Assignment

Create a more-than-human persona

Based on collected primary and secondary stakeholder data, create a more-than-human persona.

More-than-human personas can help ensuring that the needs of both human and non-human stakeholders are considered when making design decisions, enable designers to expand human-centred design for a more nuanced understanding, leading towards a more inclusive design practice, and help when designers do not have direct access to the stakeholders.

References

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<https://mova.uni.mau.se/>



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