

A blurred background photograph showing several people in a group setting, possibly a workshop or outdoor activity, with hands visible holding tools or equipment.

Supporting Collaboration in Small Volunteer Groups with Socio-Technical Guidelines

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Neighborhood projects



Citizen science

Volunteer groups are important for society



Student organizations



Open data events



Hackathons



Online communities

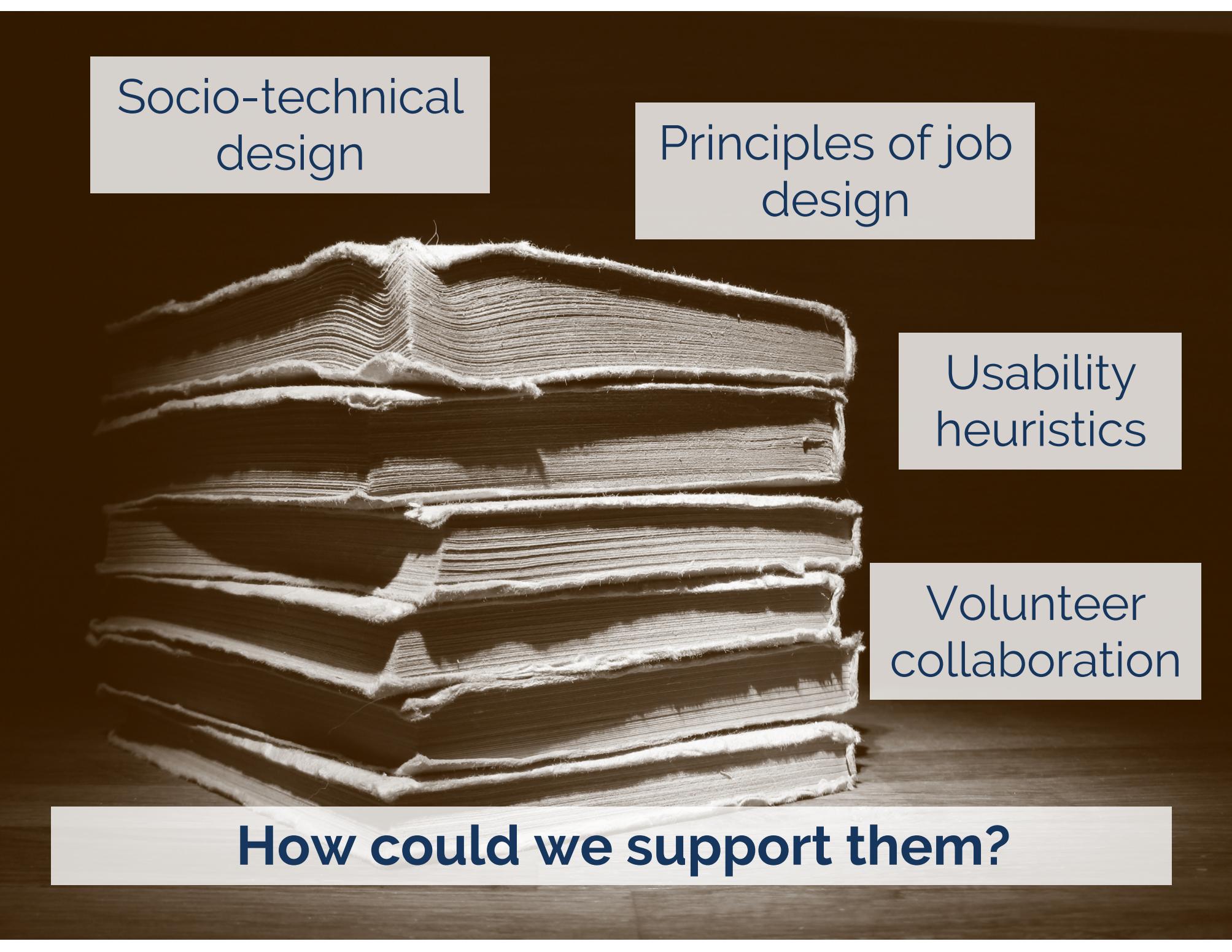
Student groups creating a campus AR tour



But what is the Tiger Walk?
Explore it now. The Tiger Walk
means...

We go through the columns
toward Jesse Hall....

We go from Jesse Hall through
the columns...

A stack of approximately ten old, thick books is positioned in the center-left of the image. The books are bound in worn, textured covers, likely leather or cloth, showing significant signs of age and use. They are stacked somewhat haphazardly, with some books slightly offset from others. The background is a solid dark color, which provides a strong contrast to the lighter, textured surfaces of the book spines.

Socio-technical
design

Principles of job
design

Usability
heuristics

Volunteer
collaboration

How could we support them?

The background of the slide is a photograph of a night sky. A bright crescent moon is positioned in the upper left quadrant, surrounded by numerous small, scattered stars of varying brightness. The foreground is dominated by the dark silhouette of a large, leafy tree branch on the left side.

Cat1: Reality check

Is there a sufficient compatibility between
pursued goals and what can be achieved
based on available resources?



Cat2: Suitability of task allocation

Are tasks allocated according to volunteer needs, competencies and interests?



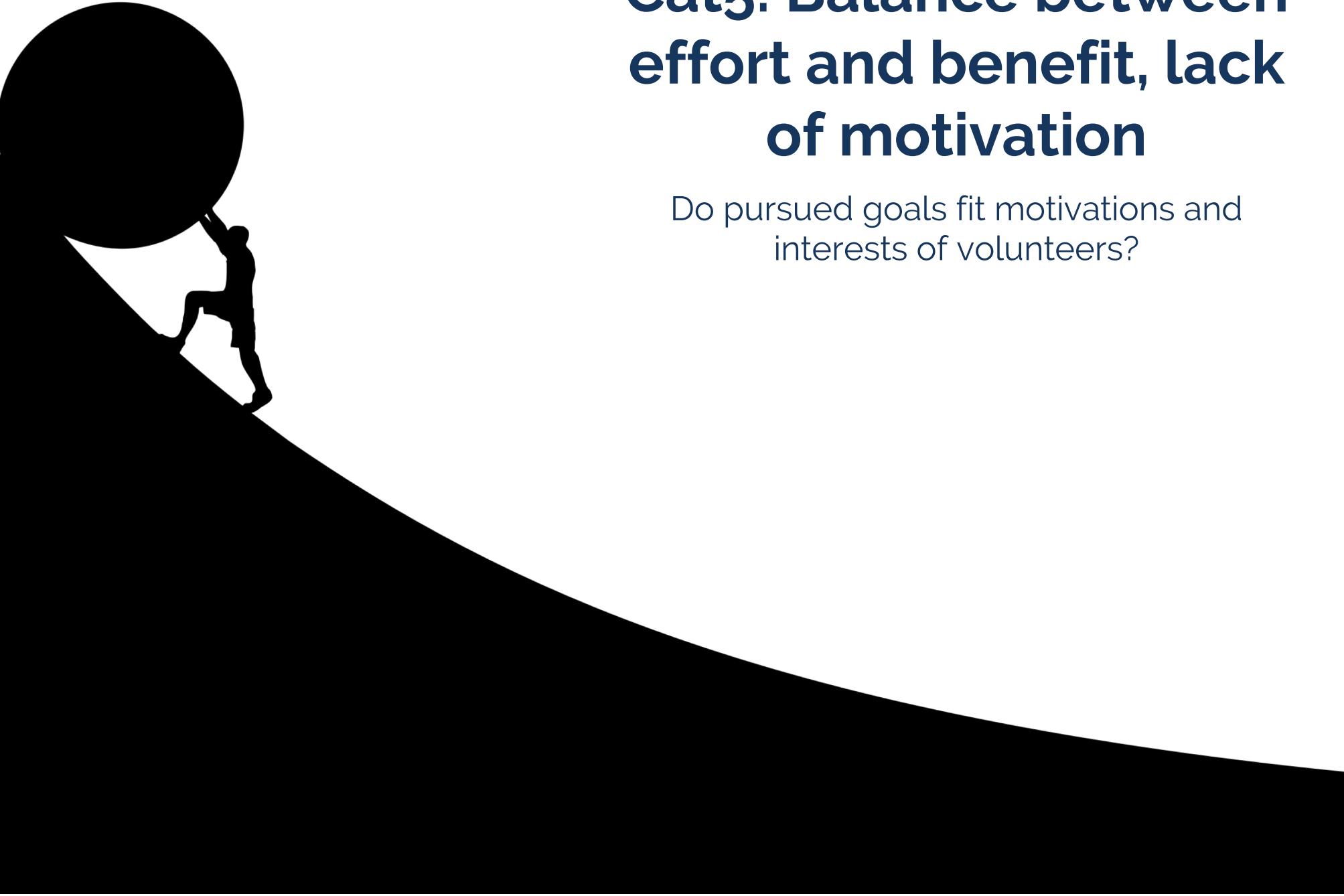
Cat3: Social dynamics

Is the relationship clear between the volunteers and the roles that they take?



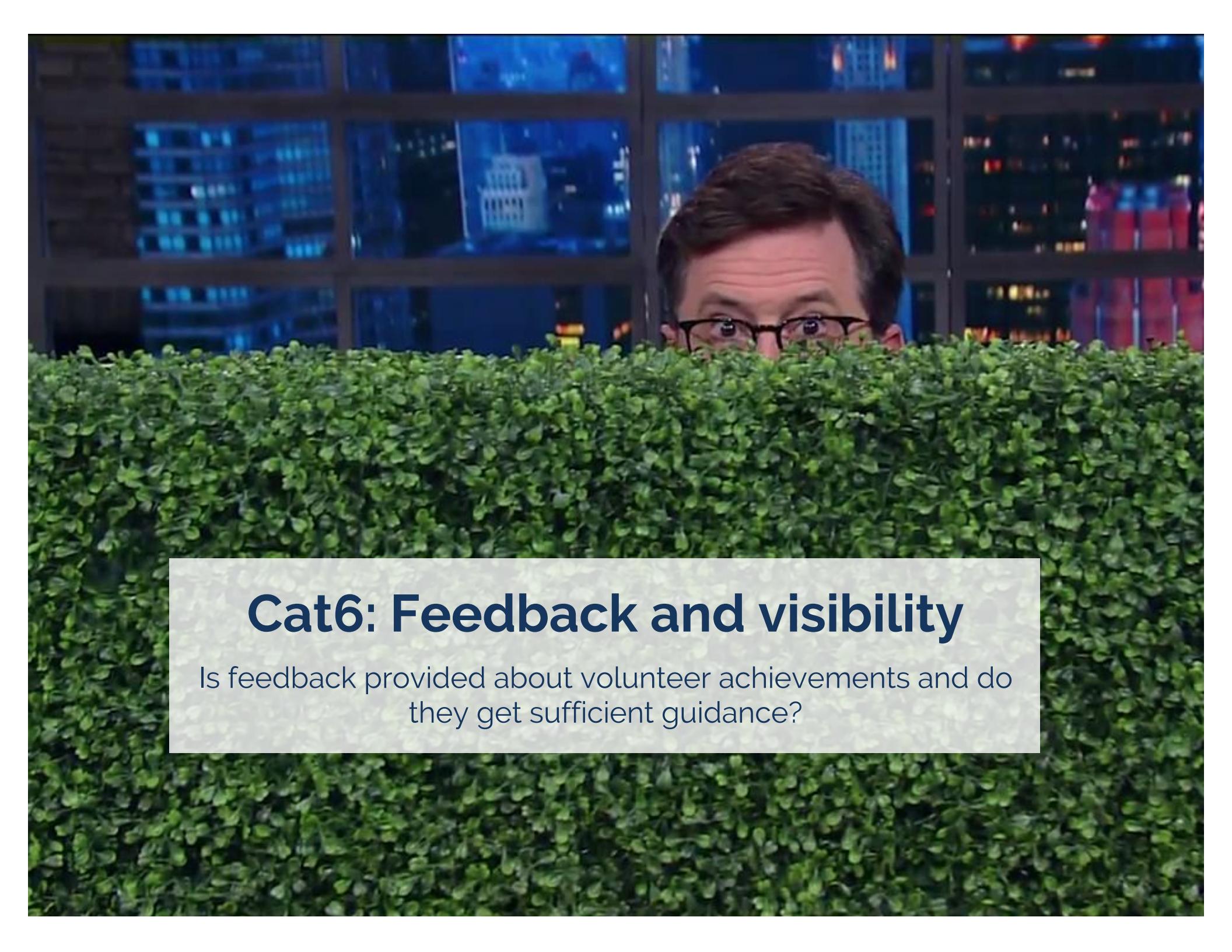
Cat4: Proper information exchange and communication tools

Can volunteers decide which tools to use and can they identify which information to share, with whom and when?



Cat5: Balance between effort and benefit, lack of motivation

Do pursued goals fit motivations and interests of volunteers?

A photograph of a man with dark hair and glasses, wearing a red shirt, peeking over the top of a dense green hedge. He is looking directly at the camera with a slight smile. The background is a dark studio set with city lights visible through large windows.

Cat6: Feedback and visibility

Is feedback provided about volunteer achievements and do they get sufficient guidance?



Category	Issue identified
Cat1: Reality check	<p><i>"GoogleGlass was not feasible without significant funds where we put hundreds of thousands of dollars"</i> (I2)</p>
Cat2: Suitability of task allocation	<p>I2 had project management skills but <i>"we failed a lot when tracing [our] activities"</i> (I3)</p>
Cat3: Social dynamics	<p><i>"pretty organic"</i> (I2) <i>"self-emerging"</i> (I3) <i>"no [explicit] hierarchy"</i> (I1) <i>"too slow"</i> (I4) <i>"Not really really interested and motivated"</i> (I3)</p>

Category	Issue identified
Cat4: Proper information exchange and communication tools	GoogleDrive, Box, Samepage were all used at different points <i>"email would be number one"</i> (I4)
Cat5: Balance between effort and benefit, lack of motivation	<i>"not really really [...] motivated"</i> (I3) <i>"extremely hard working"</i> (I4) <i>"people losel[ing] interest"</i> (I2)
Cat6: Feedback and visibility	<i>"meeting[s] every week"</i> (I2) but not sufficient feedback <i>"not much really happen[ing] in these meetings"</i> (I2)

- Not all categories are equally important
- Reality check might be required more than once during project (Cat1)
- Differentiate between coordination and other tasks (Cat2)
- Strong interdependency between tasks and social dynamics (Cat3)
- Focus should be on application of tools and not tools as such (Cat4)
- Tasks need to be mainly distributed based on interest rather than skill (Cat5)
- Feedback should focus on feedback between volunteers (Cat6)





Test usefulness for quick assessment

Refine based on additional literature (co-design)

Can volunteers use them themselves?



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