

Human-Computer Interaction Contributions in Mental Health: A Framework to Guide Psychosocial Intervention Design

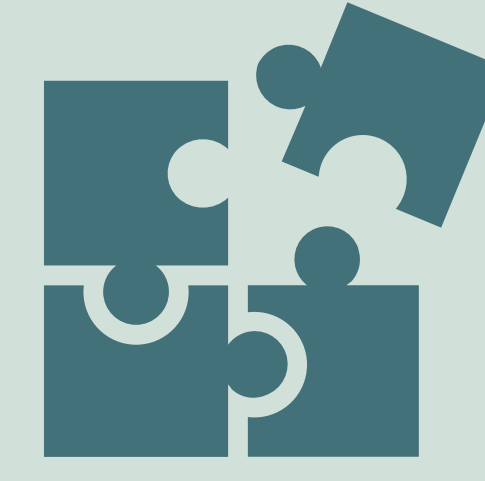
BACKGROUND

Researchers, health systems, and startups increasingly turn to technology to deliver or augment psychosocial interventions. E.g.,

- to increase access to interventions and scale them out or up
- to support practicing skills or otherwise engaging in a mental health intervention *between* sessions

Technology-delivered or technology-supported interventions have shown potential. However, many of these technologies may fail to deliver on their promise or even increase inequities.

How might we ...



coordinate expertise so that digital mental health technologies can deliver on their promise?



balance design innovation with retaining psychologically active components?

CORE IDEA:

Reframe intervention design as experience design

HCI: Thinks in **design briefs** (based on user needs)

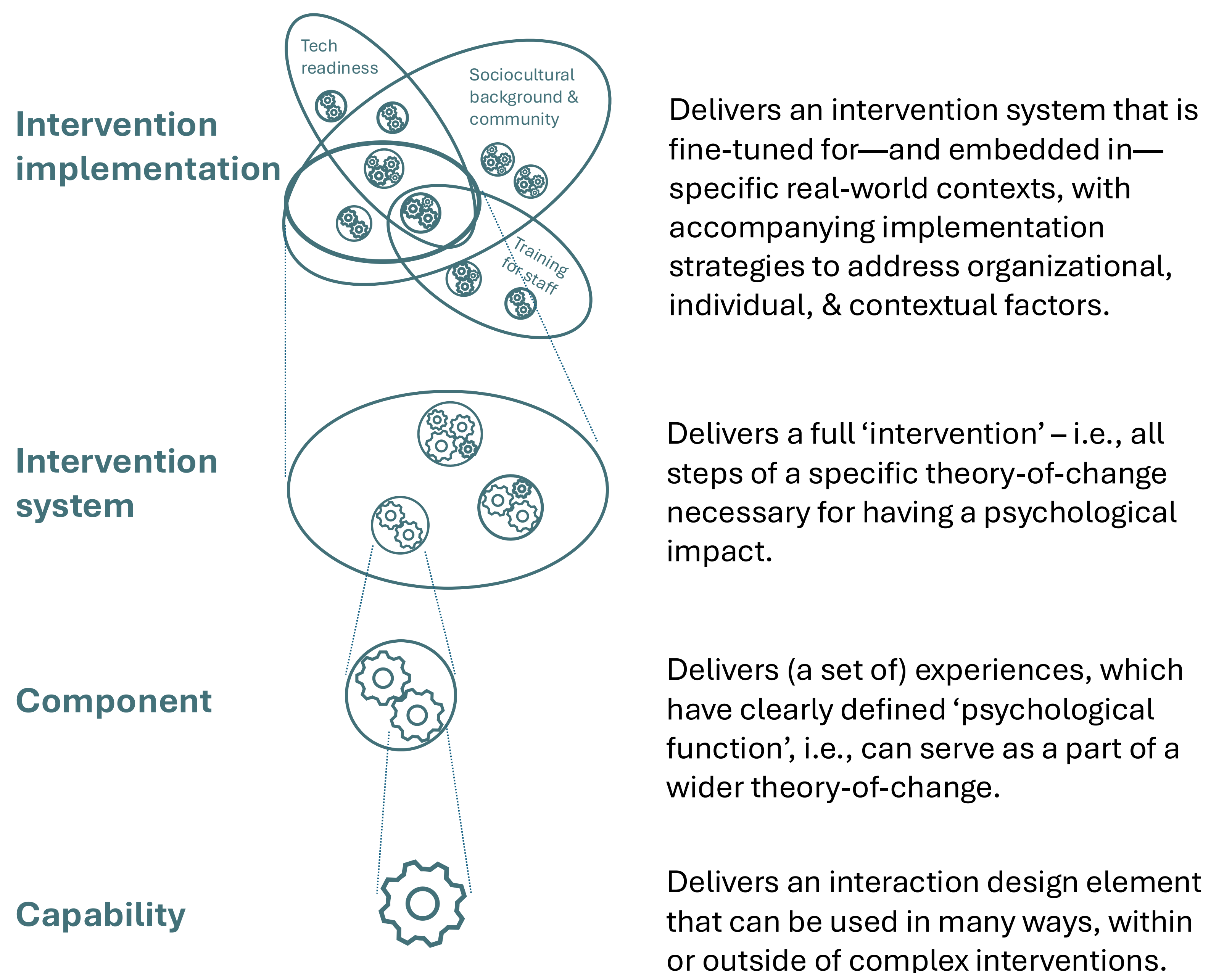
Describes **sets of experiences** people should have

Encapsulated into **design briefs**:

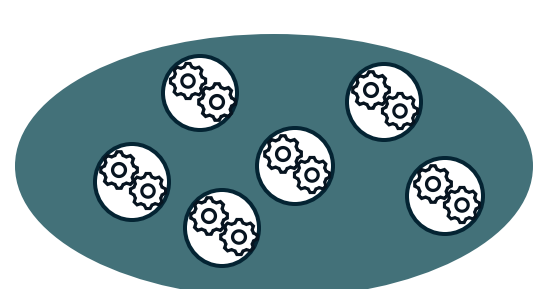
- Functionality: what experience should result?
- Constraints under which it must work
- Linkage to theory of change

PSYCH: Thinks in **theories of change** (based on what needs to happen)

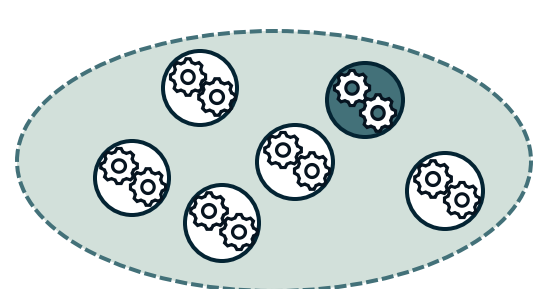
MULTIPLE SCOPES OF CONTRIBUTION ARE POSSIBLE (& NEEDED!)



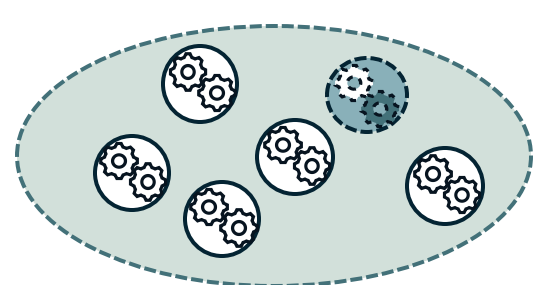
Design innovation is possible at different scopes



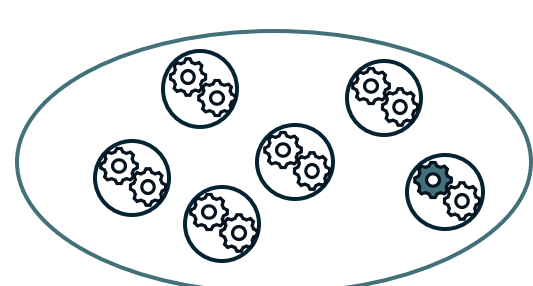
Novel intervention from existing components



Novel component that enables (a sketch of) one or more novel interventions

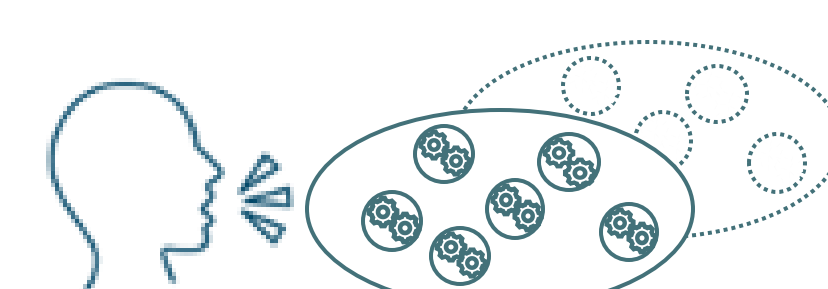


Novel capability that enables (a sketch of) novel components ...and maybe interventions?

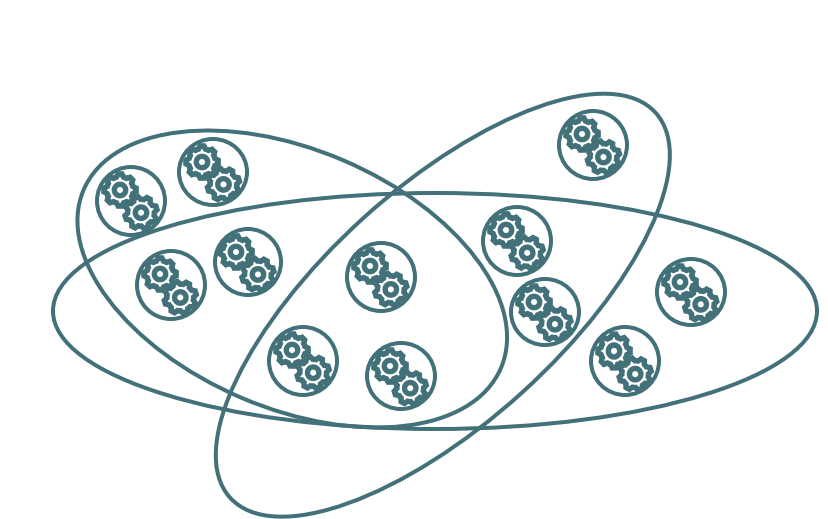


Novel capability that lets an existing intervention system work for more people, at lower cost, or more reliably

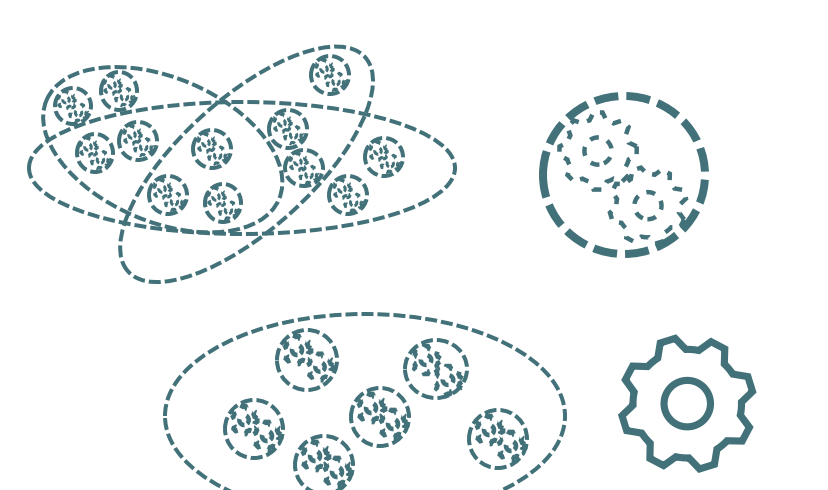
Scopes and design briefs are not just about design and evaluation!



Critique of practices or directions in the field



Understanding lived experiences with implemented interventions (or situations in which people may benefit from an intervention)



Design briefs for novel implementations, interventions, components, or capabilities.

Our framework describes HCI + mental health contributions at different scopes. Design briefs at each of these scopes can support coordination within and across fields.

- Linking technical innovation to the theories of change that describe psychosocial interventions,
 - Encouraging innovation, rather than strict replication of existing interventions and components, and
- ... ultimately balancing making new mental health interventions possible with making current mental health interventions better & available to more people.

