

**Beyond functionality of single devices.**

Cross-device settings should not be restricted by the boundaries of functionalities of existing computational devices and could go beyond the current limits to include aspects of ubiquitous computing. Rethink the meaning of “surface” in cross-surface.

**P 001**

**Building functional prototypes are one way to demonstrate current research and showing remaining challenges.**

**P 002**

**Provide Intelligibility**

Visualise connections between devices to avoid confusing the user and provide a clear overview of the current state.

**P 003**

**Adapt to device configurations**

A cross-device applications should adapt to the devices at hand and be able to adapt dynamically to changes to the device configuration that may occur at any time.

**P 004**

**An intelligent notification management system that considers the current context of the user can decide whether the user should be interrupted at all and on which device.**

**P 005**

**Spatially aware systems that adapt to the spatiotemporal relation of devices can help to make sense of large datasets.**

**P 006**

**Posture can be used to analyse the relations between users and devices, as well as their roles.**

**P 007**

**Web technologies are widely available and standardized which help mitigate the heterogeneity of nowadays device ecologies in the wild.**

**P 008**

**Checklists and Walkthroughs enable analytical application design for interaction in the wild - Analytical methods such as cognitive walkthrough, activity walkthrough provide means to better design applications for the wild.**

**P 009**

**From files to activity-based computing**  
Cross-Device settings and Mixed-Shared Workspace settings supplement collaboration by offering opportunities for coordinate and move between individual (sub) tasks handling and shared overview and collaboration

**P 010**

**Work and research on toolkits for tangible user interfaces (TUIs) can inform the development of a utopian model for cross-surface interaction (because TUIs represents similar challenges as cross-surface interaction).**

**P 011**

**Could spatio-temporality be metaphorically magnetic? What does it mean to have spatio-temporal push and pull? How can we represent spatio-temporal push and pull? Is there a social analogue?**

**P 012**

**Multi-surface environments (MSE) comprised of mobile and immobile interactive surfaces are likely to become commonplace in the foreseeable future.**

**P 013**

**With the introduction of mobile internet devices (MIDs), we populated our lives with an enormous quantity of asocial technical species.**

**P 014**

**Today, the communicative capacities of the devices and their simultaneous use goes way beyond the one-to-one equivalence of a single user that are facing a single device.**

**P 015**

**Shared Freedom**  
Free configuration of device ecologies allow to loosen the borders between single-user and group-based activities.

**P 016**

**Mixed Reality environments can be used to support collaborative cross device interactions**

**P 017**

**People are quite comfortable using their personal devices when operating within the confines of the information and capabilities accessed through a single device.**

**P 018**

**Checklists enable designers to work through and perhaps mitigate unforeseen barriers to the use of multi-device interactive systems.**

**P 019**

**Web technology enables installation-free, lightweight cross-device frameworks. The availability of modern web browsers on most mobile devices allows for cross-device frameworks based on web technologies that require no previous installation.**

**P 020**

**Enable multiple roles.**  
Devices can assume different roles in a cross-device configuration to improve flexibility.

**P 021**

**Suggested devices for pairing could be based on the fact that the person the device belongs to is in your contact list.**

**P 022**