**Territoriality**

**The main point**
- Territoriality and how it fits in collaboration

Study 1 - based on artifacts and how they are used in space
- People very fluidly worked on table. Used nearby space. Storage of items
- People create pockets of stuff
- Group areas were the center, and between users
- 0-13% didn’t occur right infront of them

Study 2 – Layout activity
- groups of 2 - 3
- Storage facilities of actual tools
- Very little to no verbal interaction
- Collaboration of use and resources
- People like to see what others are doing, and what section of work process they are in
- Size and shape of table, number of collaborators would effect the spatial properties of the space
- Visible barriers were observed
- Loose vs tight coupling was unclear from the paper.
  - Collaboration isn’t a uniform activity, it is a collection of activities of how people work together. Ie. Division of work, collaborative work, iteration etc.

Territoriality:
Most literature argued that location, partition of space and territory are equivalent, but this paper argues that a specific tabletop territory has both special properties and functionality; i.e. one person’s space may be different for a certain task.
People seem to organize spaces with very little to no verbal interaction.

Personal Territories:
Allow people to use a particular area and resources for personal use.; people found it nice to be able to see others activities so that they could see how they were doing things and when they would possibly be able to combine work, or if they were using tools, when they would be available.

Set of spatial properties, determined by:
Number of collaborators and seating arrangement, size of the table, task activities, task materials, visible barriers

Group territories:
Different coupling: for tight coupling, people tended to use “group orientation”
For loose coupling, people tended to partition the workspace.

Design recommendations
- Visibility and transparency of actions
- Providing of appropriate tabletop space
- Providing functionality and appropriate locality
  - Different functionality when things are close vs far away

**The main point as the reader sees it**

**Study 1**
- Adjustment of personal spaces
- Concept of no boundaries
  - what type of areas exist
- no separation lines

**Study 2**
- Any area on the table should be used for storage
  - should not interfere with use of software
- different functionalities depending on the areas of use
- Users don’t negotiate use of spaces, they just follow the norms
- Group areas follow the entire area other then personal areas
- Rotation of the whole view is beneficial, as opposed to moving people

**Design implications**
- Visibility and transparency of action – important for collaboration
  - Using part of the table is more beneficial then connecting external devices as personal space
- Providing of appropriate personal space
  - benefit of traditional tables is the addition of excessive personal space
- Provide functionality in the appropriate locality: functions done in the personal space versus functions done in the group space
- Allow casual grouping of items and tools in the workspace

**How this relates to us**
- This paper helps us in thinking about tabletop real-estate allocation.
  - gives us ideas about how we should define user interface
  - Spacing is casual, not specific boundaries
  - subgroups forming from personal space
  - We need not to impose on casual behaviour
  - Use of space should just make sense, not need to be explicit
    - which part of space is useful, what isn’t
  - Subgroups
    - differing activities within groups
  - Do not impose any obstacles as people might change, remove, add, overlap these regions.
  - Should not require the collaborators to negotiate/select beforehand about the boundary of each of these regions.
Discussion
-guidelines – foolish not to know them well
  -even more foolish to use them
  -Good for constructing thoughts about how to do something
-Storage is underplayed
-Anybody can do anything in these studies, does not include hierarchy, and some tasks utilize hierarchies
-Guidelines were general principles
-Need to think about the materials you have
  -Ways of coping with what you have
-Fluid transitions
  -Spaces, group vs individual
  -Activities
  -Dynamic, smooth transition
  -Changes need to happen without negotiation
  -We need to be more specific in what we mean about fluid, so that it can be included in software
  -Mode switching is not normally fluid
    -Changing modes with your feet is not so bad
    -Doesn’t require conscious cognitive thought
-How does reach effect personal space.
-How does personal space change based on personality
-How do cultural differences effect personal space
-Storage has a huge difference on tables
-The distinction between personal and private territories
  -Private needs you don’t want everyone watching
  -Personal work as contributing to the group