TEX collects content paragraph wise.

In between it can trigger the so-called output routine. At that moment you can do something with the result.

One of the things you can do is package all collected so far in a page.

In \texttt{LUA\TeX} we can also intercept content at more places. For instance before and after each paragraph is processed.
TEX has no concept of columns.

You need to fake them by fiddling with the width and spitting boxes.

Often we can use tabulate (no output routine).

For some local applications we use simple columns.

In for instance itemize we used a mixed one- and multi-column model.

Columnsets are another (independent) mechanism, strongly grid based.

Traditional multicolumns are being replaced by a new mechanism: mixed columns.

Pitfalls

• Footnotes: page, first or last column, each column (delayed, immediate).

• Graphics: moving floats around is more complex than in single columns.

• Nesting: how about columns inside columns.

• Balancing: can be hard taking all into account.
Questions

• Do complex column mechanisms still make sense given the move to electronic paper.
• If so, what functionality should be provided.