

# Re-configuring Televisions in the Pub

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## Background

A large majority of pubs today have televisions affixed to the walls. They will usually display either a sports channel or a news channel. Displaying news gives solitary guests a way to keep occupied while waiting for others and a sense that they are connected to the world. Showing sports allows the pub to increase profits [REF], potentially giving people a reason to visit the pub.

Crucially, there can be several (four or more) televisions around the inside of the pub. Employees will be required to **re-configure** individual televisions at certain points, in order to satisfy guests. Perhaps a major crisis is unfolding, such as a terrorist incident and the news channel must be displayed. Perhaps a sports match is about to begin. Guests may book a table and ordered food specifically for this match. In this article, *reconfiguring of the television* includes changing the volume, turning on subtitles or changing the channel – all these actions require a remote control.

This article is concerned with one specific problem: How to organise the various remote controls so that employees can select the correct remote control quickly.

## The Problem

First, a clarification of the problem is in order. There are many remote controls in the pub, all kept in a Tupperware box. It is not the case that every remote control works on every television. Therefore, if you need to *reconfigure* a particular television, you need to search for a remote control that works.

But it is not merely a Search Problem. For it is not immediately obvious which remote control

can be used, since they all have a similar visual appearance: numerical buttons; a set of configurable coloured buttons (red, blue, green, yellow); a channel changer button; a volume change button; and so on. The differences are subtle. One will have a Panasonic logo printed on it and another will have a Samsung logo printed on it. It is not merely a Search Problem because an employee will *test* the remote controls, one by one. Each is aimed at a particular television so that it receives the infrared signals, while a button on the remote control is pressed.

What is the cost of this trial-and-error procedure? It may take five minutes from the point of intending to reconfigure one television to actually completing the task. If two sports matches are shown in one day, say, this is ten minutes. If four days a week involve this number of intentions to reconfigure a television, then this is forty minutes of labour every single week.

The visual similarity of remote controls means the problem is **persistent**:

Even if one finds the correct remote control that successfully reconfigures one television, it is difficult to remember which remote was the correct one when re-configuration is required the next time.

So, success has no stability. The differences are bland (e.g. standby button is on the lefthand side, not the right). Learning is difficult. This means that the Search Problem persists throughout time, even for long-term employees.

Remote controls with one television will often work on televisions manufactured by distinct brands. For example, a Samsung remote control will—perhaps unusually—work on a HiSense television. This is an important feature of remote controls: **cross-compatibility** exists.

When a new television is installed, it is reasonable to retain the remote control from the previous one if it still works. It's reasonable because you then have **redundancy**.

Having *two* remote controls that work on a television is better than having one remote control that works. There are at least two reasons why this is true: **(1)** it is *faster* to find a remote control that works, when you are searching for a remote control that works **(2)** if

one remote control fails, for example because its batteries have run out, then another can be used. Good systems have redundancy built into them. Our solution (called CMM) will take into account the fact that humans have a tendency to hoard remote controls that work.

## The Current System

A Doggett's, an attempt has been made to remediate the problem. One remote control has a label on it which says "[Table 10](#)". Another has the label "[Table 10 and table 37](#)". Some remote controls, such as the Samsung remote control, have no label on at all.

The idea seems to be as follows. If you want to re-configure a television, then you locate the closest table (either 10 or 37) and then find the remote control that bears the label for that table. I'll call this solution *Table Label*.

There are **five problems** with *Table Label*. **First**, it makes knowledge of table numbers essential. This is problematic since the pub has a high staff turnover, and employees often do not possess knowledge of table numbers.

**Second**, it is not intuitive. It would be natural to suppose that the remote control which says "Table 10" can only be used for one television. (In fact, the system intends this remote control to be used for *two* televisions in the vicinity of Table 10.) *Table Label is counterintuitive in that there is not one television for each table.*

**Third**, some remote controls have no labels at all. It is not clear which televisions these "naked remote controls" can be used for. Employees feel obliged to test these "[naked remote controls](#)" when they are attempting to re-configure a television and this takes them away from serving customers waiting at the bar.

**Fourth**, the labels are not aligned with the truth. One HiSense remote control says "Table 10", which suggests that it can be used for televisions near to Table 10. There are *two* televisions near to T10. In truth, though, this remote control can be used for *three* televisions in Doggett's.

**Fifth**, the *Table Label* system is not future-proof. How so? Well, suppose a television is replaced. And suppose that the remote control bearing

"Table 10" no longer works on the television for Table 10. We must then remove the label and put a label on a new remote control.

## System Criteria

The system ought to minimise the time taken to locate the correct remote control. *Table Label* does not do this. In addition, the system ought to be:

1. *Requiring no background knowledge* e.g. knowledge of table numbers.
2. *Intuitive*. Anybody can understand the system.
3. Absent of any "naked remote controls".
4. *Aligned with the truth*. Any markings on remote controls should suggest what is true.
5. *Future proof*. The system can easily adapt to the installation of a new television in the pub.
6. *Redundant*. The system maximizes the chances of encountering a usable remote control. It does not suggest that only *one* remote control is suitable for a television if several can be used.

## The Colour Match Method (CMM)

Here I will describe the system which I propose. Every television location is assigned a colour. As you move around the pub—in an intuitive path from the front door to the back—you have RED, ORANGE, YELLOW, GREEN, following the ordering in the rainbow. The rule is simple:

If a remote control has a coloured sticker then it can be used for that television.

*Any* remote control which has a red sticker can be used on the red television. If a remote control bears a red and orange sticker, then it can be used on the red television and the orange.

Ensure that every remote control is marked with all its capabilities. The Colour Match Method (CMM) makes finding a suitable remote control as fast as possible, since it increases the chances that the employee encounters a usable remote control.

The virtues of the CMM are that no background knowledge is required other than knowledge of which television is the RED and which the ORANGE. But this is easily remembered. There can be a large, coloured piece of paper behind each television. This can be (but does not have to be) visible from a long way away.

CMM has three disadvantages. **First**, that it is not future proof. Suppose that the television in the RED location is replaced, and RED remote controls no longer work for the television at RED location. Potentially, many red dot stickers must be removed from a number of remote controls. **Second**, it is unhelpful for individuals who are colour blind. For example, it would be problematic if somebody could not distinguish orange from red. **Third**, it relies on background knowledge of which television is in the RED location and which in the ORANGE location etc.

Ultimately, however, the advantages of CMM outweigh its disadvantages. The time saved searching for remote controls (which CMM eliminates) outweighs the cost of re-configuring the stickers on the remote controls. As noted earlier, forty minutes of labour *per week* are spent searching for a remote control. Removing two small red stickers from two remote controls takes 2 minutes. It is achieved by scraping, using the handle of a teaspoon. And this is likely required *per two years* (the lifespan of a television).

On the circular red stickers, an “R” is written for red, an O for orange. This helps those with colour blindness. You could even write RED on the primary remote for the television in the RED position and ORANGE on the primary remote for the television in the ORANGE position. (“Primary” only, to avoid excessive labelling.). Perhaps the *position* of the labels could be made to be significant. Red at the top, like with traffic lights. Finally, I concede that knowledge of which television is RED and so on - this *is* certainly required. But a central observation of this paper is that this knowledge is *more easily* communicated and more easily remembered than knowledge of table numbers. Contrast pointing out a particular table and getting somebody to remember its number with “*that big screen there is RED*”. The former is unlikely to persist, the latter is vivid.

It is easy to pick up the system, especially if you recall that the colours have an order to them (Richard Of York Gave Battle in Vain), which means that if an employee forgets that the Yellow television is yellow, then they can recover this knowledge *themselves* by “counting” around the televisions.

## Conclusion

The CMM system relies on very little background knowledge and the knowledge it requires *is easily learned*. It is intuitive, does not involve “naked remote controls” which slow down the search, and it is aligned with the truth. Crucially, it is redundant, *utilising*, for good, the fact that *many* remote controls might work on one television.

To implement CMM, start by sticking a red sticker on each remote control that works on your RED television. Teach people that the first television is red.

## References

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