

## The Tipping Point

Malcolm Gladwell

One of the concerns in managing a modern hydrographic office is the rapid pace of change. Technology, despite our best efforts, does control what we do and how we do it. However we do have some degree of control over how we implement technology into our working lives. What we cannot control is the pace at which technology is suddenly embraced by our clients. Clients that suddenly demand a completely different level of service can have a huge impact on our ability to deliver. Additionally we cannot control the pace at which the clients pick up a technology that would be beneficial for us. The acceptance of ECDIS comes readily to mind. This book gives some clues as to how social systems accept rapid change.

If you have ever wondered how certain trends, gimmicks or technologies catch hold fast and zoom in popularity while others languish for years then *'The Tipping Point'* by Malcolm Gladwell can give you some clues. At a minimum it provides an abundance of examples wherein an idea, perhaps not even a new idea, suddenly and spectacularly explodes in popularity. What phenomenon lies behind sudden and explosive popularity is the subject matter under investigation. What makes some things explode with virus-like speed throughout a large community which had previously seemed impervious? The Tipping Point is the term given to the point in time when the change seems to happen everywhere all at once.

Consider these examples: SHARP introduced a new generation of FAX machines into the US in 1984 and sold 80,000 units that year. Sales for '85 and '86 were better but not dramatically so. However in 1987, the FAX market tipped – and 1 Million units were sold. That year a critical mass of people had FAX machines and it suddenly made sense for almost everyone to join in. Cell phone sales followed a similar trajectory. In the early and mid 1990's steady cell phone sales built towards a critical mass and then, in 1998, a sudden explosion of sales. The acceptance of the Internet is yet another example.

The scientific basis for the Tipping Point follows the same principles behind the way measles can move through a classroom. First, there is a virus borne by carriers who have many human interactions per day. Second, epidemics start when a small change is made - like an increase in the average number of human interactions per day at the end of a holiday period. Third, the context has to be right for an epidemic to catch hold – elements like the weather, the general level of fatigue etc.

Social epidemics follow these same patterns. They are a function of the people who are transmitters, the infection itself and the environment the infection is oper-

ating in. Gladwell calls these three criteria The Law of The Few, the Stickiness Factor and the Power of Context.

**The Law of The Few:** Social epidemics are driven by the efforts of a handful of exceptional people with connections, knowledge, energy, enthusiasm and personality that can push a new idea to a large audience and, by their personal charm or credibility, get people to pay attention. Connectors are people that naturally cultivate acquaintances and bring people together through informal networks. Then there are the Information Brokers – the people who always seem to be at the cutting edge of whatever is going on. These people (Gladwell calls them Mavens) cultivate knowledge. But their real strength is in how effective they are at passing that knowledge along. Rather than being persuasive they are trustworthy. People take them at their word. After all, they are not selling anything – they are merely passing along what information they have. Persuasion, on the other hand, is the naturally gifted art of sales people. And sales people are as important as the Connectors or the Information Brokers for starting word-of-mouth epidemics.

*All three together can start an epidemic. But they can't keep it going. That relies on something else.*

**The Stickiness Factor:** A fad, by definition, has little stickiness. It has flash popularity, here today, forgotten tomorrow. Ideas that catch hold are more than fads. They provide something useful and hence they stick, and once they stick, they stay stuck. That's the second clue about social epidemics – the 'virus' actually does something useful and people retain it. There is a simple way to package things that, under the right circumstances, makes them irresistible. So in that brief instance when you are introduced to something for the first time you decide to pass on or go back for a second look. It's that second inquisitive look that makes something stick in your mind and once there it stays there it becomes part of your experience.

However, to finally move a large number of people to action requires the right environment.

**The Power of Context:** Epidemics are sensitive to the conditions and circumstances of the times and places in which they occur. If you want to bring about a fundamental change in people's belief and behaviour you need to create a community where those new beliefs could be nurtured. Under the right circumstances relatively small changes in context can give big effects.

**Tipping Point for ECDIS:** Linking this theory to the unfolding history of the ECDIS 'epidemic' (still in the development stage) we can see that we certainly had the Connectors at work. The word of ECDIS was spread far and wide and it is unlikely that there is a shipowner anywhere who has not heard of this technology. Information brokers and sales people are also in the plenty. As for Stickiness, this occurs whenever a mariner sees a system for the first time in operation on the bridge of a working vessel. Prior to that it is simply one more gadget that can break. This is why pilot projects and sea trials are so important. Once mariners see systems on a moving vessel and look out the window at a passing buoy or jetty and see instantly the correct image on the screen - their ownship, the aids, shoreline, physical features, other vessels –scrolling out and matching the real world – that's something they remember; that's Stickiness. They like it and they don't forget it. The role and importance of these pilot projects and sea trials is fundamental to introducing the kind of change we are looking for.

Of course Stickiness goes both ways. Mariners unhappy with the presentation lock onto a mental image of something they don't like and that can cause a lot of problems. If Mariners get the impression that ENCs are complex, expensive and bring nothing new to the table – that image takes a long time to correct.

As for Context - ECDIS has always been pushed as a substantial improvement in marine safety but are we preaching to the converted ? The shipping industry hears enough about marine safety from govern-

ments around the world. What they want is better infrastructure to make them more competitive with rail and truck. That's one context where we could develop a positive epidemic by making ECDIS a crucial mainstay in a new marine infrastructure.

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