Innovation family trees

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MANAGING INNOVATION

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Choose an example of an innovation – a new product, service or process. Now try and explore where it came from, tracing back its 'family tree'. For example, the smart-phone began life a long time ago as the original telephone invented by Alexander Bell- although even that was an update on the earlier communication mechanism of the electric telegraph, one of Thomas Edison's great inventions. The phone then went through a long period of being shaped and improved by both technological changes – new materials such as plastics making it lighter and mouldable into interesting shapes, for example. And user demand changed, requiring different dialling options, moving the system away from operator facilitated to direct dial. Later still came the first generation of electronics which allowed more functionality like programming numbers and storage/retrieval of calls. And later still came the radical jump to mobile phones – at first giant bricks and gradually becoming smaller and more compact but with greater functional power.

But in parallel we see the development of personal music systems, from the early days of the Walkman cassette player through different generations until we reach the i-Pod and other mp3 players. But they only became possible because of the invention of a different way of handling music as compressed files which could be stored on a small low memory device.

And in parallel again we see the development of the home computer into the laptop and successively smaller devices until it became possible to put them on a phone sized device.

The convergence of these technological and market trends eventually led to their combination into what has now become the powerful smart phone platform but one which continues to evolve. If we were to plot all of this history we could find a 'family tree' of technology and market demand events which spans several decades and indicates the wide range of sources of innovation.

Choose a product or service and try and trace back its origins as an idea. Where did it come from and how did it develop? Try and map its 'family tree' and examine this in terms of the different sources of innovation.

The idea is to explore where innovations come from and the complex patterns of technology/knowledge 'push' and market and other forms of 'pull'.

Take a look at the blog/video pieces on 'The birth of the bike', 'An innovation birthday party' and 'Striking an innovation chord' for some examples of this innovation history tracking. You can find them all on the website or here.