Credit the call

Dr Michael L Best, of the Georgia Institute of Technology, assesses the uptake of mobile phones in post-conflict regions…

A good deal of money has been spent, and a fair bit written, on the role of traditional media sources such as TV, radio, and newspapers in post-conflict development[1]. But what about mobile phones? Much less is known about their role in post-conflict development or indeed during periods of actual conflict.

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Much as Achilles was impervious to war (save for his much discussed heel), mobile phones seem miraculously unaffected by conflict, and penetration tends to grow rapidly in immediate post-conflict peacebuilding. According to ITU data[2], the top two countries enjoying the strongest compound annual growth rates in mobile phone penetration from 2003 to 2008 were Guinea-Bissau and Iraq, both emerging in this same period from severe states of internal conflict. But it shouldn't come as too much of a surprise that countries trying to rebuild from war can experience rapid growth in penetration. For example, doubling the number of subscribers can be easier when you are going from 100 to 200 phone lines than from one million to two million, and areas emerging from conflict can have some of the lowest initial penetration numbers anywhere.

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What's more surprising, however, is that mobile phone penetration seems rather immune to security instability. I recently examined data from the Brookings Institute's Index of State Weakness in the Developing World from 2008[3], and compared it with 2008 ITU mobile phone teledensity[4] figures. The index ranks states on their economic, political, social, and security strengths. Not surprisingly, a state's economic strength explains a lot of its variation in mobile phone teledensity (with strong positive correlation between these two variables and very strong statistical significance). Taking just one component of the Brookings' economic strength indicator, the gross national income, an additional $27 in a nation's per capita GNI corresponds to a 1% increase in teledensity. Similarly, strong relationships exist between mobile phone teledensity and the Brookings' indicators for political strength (positive correlation with statistical significance) and social strength (strong positive correlation with very strong statistical significance). Indeed, all these variables are strongly and positively related to mobile phone teledensity. And so it is all the more incredible that the security indicator – which includes factors related to conflict intensities, political stability and absence of violence, incidence of coups, gross human rights abuses, and territory affected by conflict – does not explain variation in mobile phone penetration levels (small positive correlation with no statistical significance); the relationship between these two variables is weak and statistically insignificant.

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If the mobile phone is impervious to security weak environments and thrives in post-conflict settings, why and what are people using these phones for? My lab has been examining the use of mobile phones in post-conflict Liberia trying to answer just this question.

Unrest has been a staple within Liberia for more than 15 years, with two major civil wars (1989-1996 and 1999-2003) in this time. Peace was brokered and transitional government established in 2003, with democratic elections held in the autumn of 2005. An outcome of these years of civil conflict was the complete destruction of the fixed line telephone infrastructure[5]. On the other hand, mobile telephone adoption in Liberia has recently been growing at a staggering rate[6].

Why is the mobile phone sector flourishing so intensely? We surveyed 85 mobile phone users in both the capital city of Monrovia and in various rural areas, and interviewed experts from two major service providers and the industry regulator, trying to identify why Liberians were using mobile phones. We discovered a number of user perspectives, including sets of users who saw their phones as productivity enhancers, a means of connectivity to family and friends, essential business tools, and technological curiosities. The idea of the phone as a stylish object was markedly rejected, especially in rural areas.

Furthermore, in Liberia's post-conflict context, a number of participants, especially those in the capital, identified their mobile phone as something that enhanced their personal security. It is clear that the safety and security of self, of loved ones, and of personal property is still a major concern in Liberia. Despite the 15,000-strong UN peacekeeping mission, the country's police force is still under development and many ex-combatants have turned to crime as a source of financial support. In such a situation, it is understandable that a mobile phone is seen as providing security, as it allows the user to call a family member or authorities in the event of a crime or transgression. In several cases, even police officers themselves spoke of their mobile phones as a source of security.

One phone company manager mentioned to us that when his company considered removing free calling during late night hours, customers complained that late at night was when they most needed the ability to make calls without credit on their phone, in case of an emergency situation. Another operator suggested that many users leave their phones on at night for safety, rather than switch them off to conserve battery: 'I have [a] couple of friends who could not afford for the phones to stay off at night because [of] the criminal rate in the night.'

Finally, a general theme that we encountered throughout is just the sheer indispensability of the phone for most users. In many cases, the mobile phone is their only option for communications other than physical travel, which is costly and time consuming. In places not emerging from conflict, the methods of communication are often various and many, so the idea of a single modality being so essential may be hard to fathom. But many participants we spoke to related stories of the phone saving them many miles of travel. Businesspeople celebrated the time saved in ordering goods from their suppliers over the phone, instead of travelling by costly public transportation, sometimes only to find the supplier out of stock. One participant described a hypothetical situation in which her daughter had fallen ill and she was without a phone. How should she know where to take her, when the only doctor in the area could be in any of several different towns, each a considerable distance away? Add to this the security role they apparently perform, and it is clear that the phone is a truly indispensable item.

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If the mobile phone is invulnerable to conflict and thrives in post-conflict peacebuilding, it is simply because it is indispensable. The mobile phone fills infrastructure and security gaps made extreme by the conflicts themselves. And while Achilles had one tragic weakness in his heel, the mobile phone has yet to demonstrate any such flaw.

[1] It is estimated that over the last two decades, more than US$1bn has gone towards such activities. Howard R (2005) 'The Media's Role in War and Peacebuilding', in Junne G & Verkoren W (Eds.) 'Postconflict Development: Meeting New Challenges', Boulder, CO: Lynne Rienner Publishers

[2] ITU (2009) 'The World Telecommunication/ICT Indicators Database', Geneva

[3] Rice S E & Patrick S (2008) 'Index of State Weakness in the Developing World', The Brookings Institution

[4] Teledensity is the number of phone subscribers per 100 people

[5] Best M L, Jones K, Kondo I, Thakur D, Wornyo E, & Yu C (2007) 'Post-Conflict Communications: The Case of Liberia', Communications of the ACM, 50 (10), 33-39

[6] Best M L, Etherton J, Smyth T & Wornyo E (2009) 'Uses of Mobile Phones in Post-Conflict Liberia', ICTD: IEEE/ACM International Conference on Information and Communication Technologies and Development

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