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Purpose and Scope

This paper aims to inform business entities about the evolving development of Mobile Web usage worldwide and about the extensive opportunities available.

With ever-changing market trends, the Mobile Web is exploding onto the marketplace. For the commercial world this translates into new revenue opportunities, new communication forums and revolutionary new marketing possibilities.

This paper clearly outlines the emerging opportunities on the Mobile Web and how businesses can, and have, best leveraged this.

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Introduction



- The Internet is now more than a PC-based phenomenon; with close to 3 billion mobile phones worldwide, the reality is that many people's first Internet experience will soon occur on a mobile device.
- As this trend evolves it is vital that the commercial world adapts with it, or faces being left behind. With mobile devices fast becoming the primary interface to the Internet, business opportunities are ripe.
- This paper discusses the background to the Mobile Web, how a business can best leverage the opportunities available, the best practices of doing so, and the next generation of the Mobile Web.

Background

The Mobile Web refers to Internet access on a mobile device. Due to the many usability issues and limitations associated with accessing the standard Internet on a mobile platform, many organisations support the "made for Mobile Web" concept. In essence, this is a world wide web specifically designed for access via a mobile device.

The Mobile Web is all about discovering the right content when you need it. Its advantages are obvious – information access whenever, wherever. However, three years ago the Mobile Web reached a crossroads when mobile browsing figures declined; this was due to a number of different accessibility issues.

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Now with improved access and industry standards in place, Mobile Web usage is accelerating. By 2008, the GSM Association predicts that 1.3 billion people will be connected to the Internet from mobile devices. All growth predictions indicate that usage will increase faster than the PC-based Internet. Therefore we are likely to see more than 150 million mobile websites by 2017. The Mobile Web has now moved into the mainstream market, with a growing amount of information available to users on the move.

It is now apparent that the Mobile Web is fast increasing the world's overall use of the Internet. There are currently 3 billion mobile phones worldwide compared with less than 1 billion PCs. Mobile devices are fast becoming the primary interface to the Internet for the majority of users, and this "always available" communications service is providing value to a rapidly growing subscriber base. Recent studies carried out by the Online Publishers Association have shown that Mobile Web consumers are more likely male, in the 25 – 34 age bracket who have a medium level of income. Figure 1 depicts the type of content Mobile Web users are accessing.

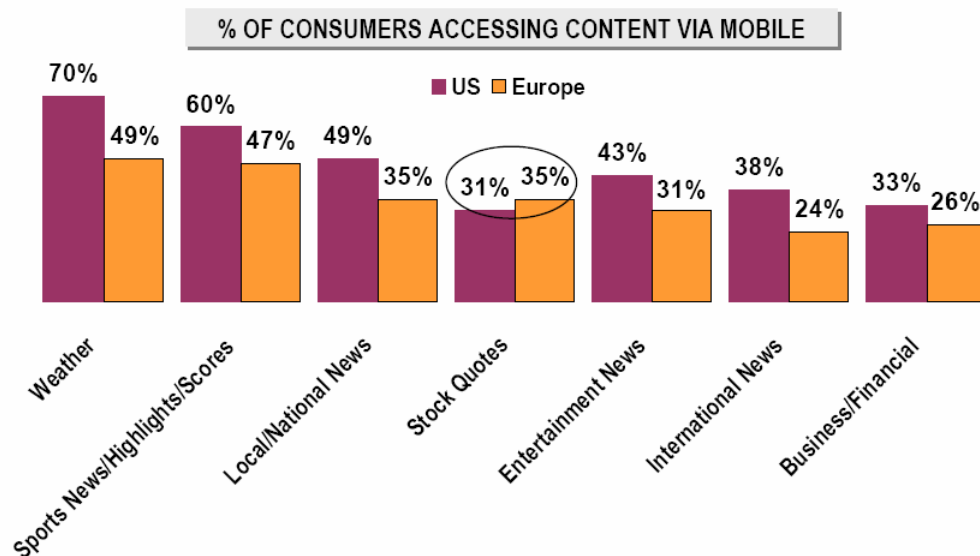


Figure 1: U.S. & European Users who Access Vertical Content on the Mobile Web
Source: Online Publishers Association – "Going Mobile"

The Business Opportunity

This new media represents an excellent business opportunity and an obvious focus for many companies is to ascertain the optimal strategy to engage when utilising this third screen medium.

With mobile marketing now established over the Mobile Web, revolutionary marketing opportunities are at hand. Organisations can now engage their audience and more specifically target them, over the most personal medium available.

Significant movements have also been made in the establishment of mobile commerce that extends beyond simple premium SMS. Notably in June 2006, Visa announced the launch of their first secure mobile payment system. With alternatives such as PayPal also offering mobile payment services over the Mobile Web, new business opportunities are materialising.

New markets and new services represent new revenue opportunities. With many PC Internet based businesses already extending their services to the mobile realm; the remainder of the commercial industry are set to follow.

New eco-systems are being established, with the mobile advertising market alone estimated to materialise into an \$11 billion industry by 2011. Several mobile and Internet content providers have already recognised the opportunities and are reaping the benefits. Other revenue prospects, many mirroring that of the PC Internet, are finally materialising due to the new secure payment systems that are becoming available.

Progressive organisations are now establishing their presence on the Mobile Web. Free mobile services such as Nubiq's Zinadoo.com, are allowing businesses to easily and cost-efficiently create a standards-compliant mobile website and then promote it, both on and off the Mobile Web.

By establishing a Mobile Web presence, businesses are opening up a new window of opportunity and are providing a richer user experience to their mobile customers. One example is ESPN; this leading U.S. sports Channel has a well-designed mobile website and is seeing a 200% year-on-year increase in their mobile website visitor statistics.

However, if standard practices are not adhered to, potential pitfalls can occur. A poor mobile website portrays a bad impression of any company, potentially turning away customers. Companies must recognise that the needs of mobile browsers are different from PC Internet users. Based on knowledge of their customers, each company should focus their message, so that it is contextual to the mobile arena and targets their mobile browsers' needs. This must be achieved while also keeping their brand identity and marketing message consistent with their other communication media. Any leading-edge company who has a poorly designed mobile website will not be credible. As with the PC Internet, it is vital that mobile websites are easily accessible and are optimised for search and discovery tools such as Zinadoo Directory Services or Google Mobile.

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Not surprisingly a lot of the initial traction in the Mobile Web space has already come from large corporate organisations and Nubiq is one company that has enabled many businesses to easily "Go Mobile" in minutes.

According to Grace O'Dwyer, Product Marketing Manager at Nubiq; "The Mobile Web represents a new platform for business communication, promotion and revenue generation. Nubiq has witnessed a huge surge in the uptake of the Mobile Web, particularly from businesses, both large and small. All market niches are realising the huge potential and striving to establish their own viable business strategy across the Mobile Web."

Carollo Real Estate, a real estate agent in the New York area, is just one example of a business that realised this potential and developed a mobile website. Their mobile website; Carollo Real Estate, shown in Figure 2, can be found at: <http://carollorealestate.mobi/>. This website allows potential buyers to view property for sale while out in their cars looking at houses.

The benefits of a mobile website in this market are clear and the website has been tailored to meet the specific needs of potential buyers on-the-move.

According to Anthony Carollo, owner of Carollo Real Estate "With technology constantly changing and the use of cell phones for web surfing growing on a daily basis, we felt it was important to make sure home buyers and sellers have access to our site no matter how they choose to surf the net. Since our mobile site we have noticed a great response with many leads we never would have had without it."

Considering all of this information, one reality remains; the mobile device is a convenient and personal commodity, which represents an ideal third screen medium for initiating new business opportunities and delivering marketing messages globally.



Figure 2: Carollo Real Estate Mobile Website

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Mobile Website Do's and Don'ts

Due to issues such as small screen sizes, slower download speeds and device incompatibility, industry standards around the Mobile Web are imperative. With the rush to create mobile websites we are seeing a wide variance in the quality of the websites created - from the captivating to the single static page. The W3C and dotMobi have both released guidelines for mobile website development. These are intended to communicate to website developers how to improve the user experience, thus ensuring that the Mobile Web is more reliable and accessible.

The W3C guidelines are available at <http://www.w3.org/TR/mobilebp/#requirements>; while dotMobi's guidelines are available, subsequent to registration, at <http://dev.mobi/>. The unique challenges inherent include:

- Size of screen on most mobile devices.
- Scrolling on a mobile phone.
- Typing on a mobile phone.

In addition, there are wide variations in the capabilities of mobile devices; from the smallest mobile phone, to PDA handsets, to laptops with mouse and QWERTY capabilities.

The W3C and dotMobi guidelines include catering for these challenges as well as a renewed focus on website efficiency. These key elements are depicted in Figure 3 and include:

- Minimising the number of clicks. An additional click may be a minor irritation on a PC, but on a mobile phone it is a bigger issue, information is expected quickly.
- Reducing the number of kilobytes in each downloaded page.
- Delivering specific information. Mobile devices are currently less likely to be used for general browsing but more for retrieving specific information.

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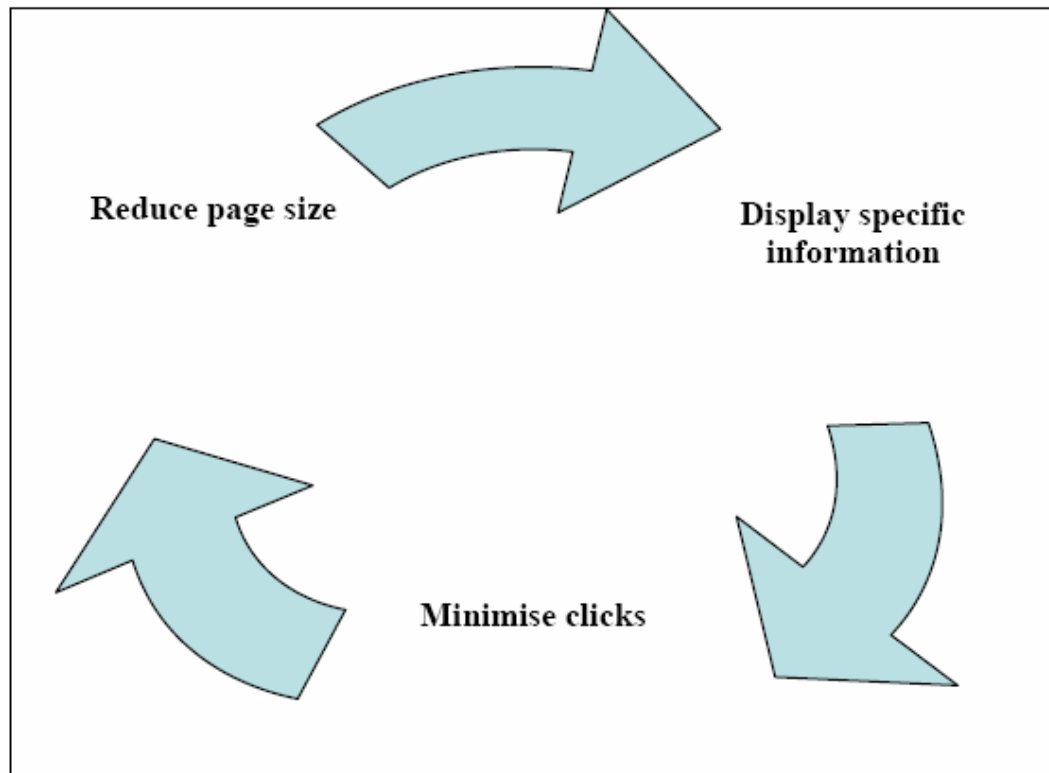


Figure 3: Key Elements to an Efficient Mobile Website

As with the early days of the PC Internet there are also some examples of poor mobile websites. In a survey carried out by the Online Publishers Association in 2007, the biggest user frustrations with the Mobile Web are:

1. Site Load Time.
2. Site Navigation.
3. User Friendliness.
4. Web Page Layout.

Clearly, site load time can be improved by the telecoms providers providing additional bandwidth. However, companies can differentiate their websites from competitors by reducing page sizes and addressing the three remaining issues, where they have direct control. Another possible solution is to allow the user to customise the website so that each user is only sent the information relevant to them. Applications now exist to allow companies track what their customers do on their mobile website.

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Mobile services such as Zinadoo provide technology that allows anyone to develop a Mobile Web presence that complies with the "W3C Mobile Web Best Practices". This is essential as the mobile device is the user's most personal communication tool. Mobile phones are much less likely to be shared than PCs. Therefore the stakes are higher in terms of providing a good user experience. If a user's time is wasted on their mobile phone, they are less likely to be forgiving.

Figure 4 illustrates results from testing the mobile compatibility of the website <http://zinadoo.mobi>. This test uses industry standard tests developed by the W3C, dotMobi and leading mobility companies and can be used by anyone to check their website's mobile compliance from: <http://ready.mobi>.



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Mobile Websites We Can Learn From

Good websites which display efficient and valuable information to their users encourage repeat visits and are more effective. One good example is "At Home Pet Sitters"; <http://athomepetsitters.zinadoo.mobi>, they present a large amount of information in a user-friendly manner. Simple efficiencies such as having the main menu at the bottom of each page help reduce the number of clicks and improve the user experience. A case study detailing Sony BMG's efficient use of a mobile website is detailed further on.

As with the PC Internet, it is vital for users to be able to search and discover other mobile websites. Applications such as Zinadoo Directory Services are essential for effective use of the Mobile Web. Just like the PC based Internet, the success of any website depends on easy discovery by their targeted customer base.

Many companies have recognised the important of having a Mobile Web presence and have their own mobile website:

- Google: <http://google.mobi>
- BMW <http://bmw.mobi>
- The Weather Channel: <http://weather.mobi/>
- RTE: <http://rte.ie/pda>
- You're A Star Reality Show: <http://star.rte.ie>
- 5 Star Astrology: <http://astrology.zinadoo.mobi/>
- Play MoGolf: <http://playmogolf.zinadoo.mobi/>

ESPN have also developed a highly successful mobile website and can be found at <http://espn.mobi>. This is an excellent example of how the Mobile Web can be leveraged to achieve corporate goals. An AdAge.com article, titled "More Football Fans Hit ESPN's Mobile Site than Its PC Pages" (Jan 2008), discusses the tremendous take-up of the website.

Significantly ESPN's mobile website has received more traffic than its PC website on multiple occasions. Such is the success of ESPN's mobile website that, of the 32 million people who access the mobile web regularly in America, 9 million of them access ESPN's mobile website. ESPN now caters for 44% of the users accessing sports information on the Mobile Web; thus highlighting the benefits that can be obtained from a well-designed, userfriendly mobile website.

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The Future for Mobile Websites

According to John Tysoe, the founder of Mobile World (June 2007), "It took over 20 years to connect the first billion subscribers [to the PC Internet], but only 40 months to connect the second billion. The 3 billion milestone will be passed in July 2007, just two years on". With other experts, such as Google CEO Eric Schmidt, recently predicting a "huge revolution" in the Mobile Web space, a bright future looks certain.

Statistical predictions for the Mobile Web also indicate fast growth, with the demographic of Mobile Web users being much more than a teen phenomenon. The Online Publishers Association reveals a relatively even demographic spread across various age profiles; this information is shown in Figure 5.

Years Old	Mobile Web User %
16-24	26%
25-34	30%
35-54	26%
55+	18%

Figure 5: Age Demographic of Mobile Web Users
Source Online Publishers Association

For any new media advertising is one of the main commercial drivers. There are many predictions for the size of the global market. Informa, Strategy Analytics and ABI have separately estimated the mobile advertising market to be between \$11b and \$19b by 2011.

Over the past year, the introduction of the iPhone onto the market has caused a considerable stir in the industry, some suggesting it would be to the detriment of the future of the Mobile Web, many believing it serves a different purpose to a more niche market. While the iPhone offers the full Internet on a handheld device, this also throws up numerous usability issues. The Mobile Web offers convenient made for mobile content that is truly optimised for a mobile device.

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With many large companies continuing to be proactive and progressive in their strategy towards the Mobile Web, the future looks bright. Companies such as T-Mobile provide added value to their customers by offering exciting Mobile Web services such as their "Web'n'Walk" package. T-Mobile conducts ongoing research into services that can increase the value proposition of this offering. Realising the market potential in Mobile Web services, T-Mobile (the Netherlands) has extended their "Web'n'Walk" package, and have now integrated Zinadoo's Mobile Web technology. Similarly O2 Ireland also offers Zinadoo's services to customers. In both cases these mobile operators are now providing their customers with the ability to create and promote their own mobile websites. Once a customer creates their own website they consume more data (Mobile Web and SMS). By sharing the service with other people, this benefits, not just the website owner, but all entities in the eco-system.

Market penetration is also a key consideration when examining the future of the Mobile Web. In the US, the penetration of Mobile Web-enabled devices is 19%. This correlates with the penetration of Internet-ready PCs in 1996; 12 years later, this figure now stands at over 75%. According to H  l  ne Haughney, CEO of Nubiq, "Even the most conservative predictions show the Mobile Web to be a massive growth market over the next 3 years. Nubiq has partnered with several key players in the industry to ensure services like Zinadoo will be the de facto standard for Mobile Web creation, discovery and management".

Based on key industry studies, Nubiq predicts the next 10 years of the Mobile Web will take a similar path to the last 10 years of the fixed Internet. New technologies and services will be instrumental in the next big upsurge in Mobile Web usage. The introduction of Google's mobile device, Android, will also have a significant effect on what is developed for the Mobile Web and how it is developed. By opening up mobile platforms, new and exciting technologies can be expected that offer a more enjoyable consumer experience, with greater business benefits to be reaped.

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Conclusion

Statistics indicate that the Mobile Web is growing at a faster rate than was seen in the 1990s for the fixed Internet. According to Informa, new services and technologies will be instrumental in breaking down the barriers to Mobile Web adoption and building an estimated 2 billion Mobile Web usage market by 2010.

Companies with standards-compliant search-optimised websites will clearly obtain a competitive advantage. The easily-realised benefits of developing a mobile website include:

- Enforced brand awareness.
- New communications method via the world's most personal technology.
- New business and revenue possibilities

Worldwide, mobile phone penetration rates are expected to surpass the 50% mark in 2008. With penetration figures in excess of 100% being reported in many industrialised countries, it is evident that the mobile device is about to become the dominant interface to the Internet. Consequently, it is also apparent that every company needs to have a mobile presence. Not just technical oriented companies but now, with potential customers actively using the Mobile Web, non-technically focused businesses have to cater for the mobile market. Potential customers surfing the Mobile Web will be more disposed to companies who have mobile websites that they can easily find and view.

It cannot be a one-size-fits-all approach. Companies must target specific demographic groups with information and applications that meet the needs and fire the imaginations of the users. As with the PC Internet, Nubiq fully expects there to be a number of challenges in the growth of the Mobile Web.

Key applications for social interaction, and mobile website search and discovery, such as Zinadoo Directories, are predicted to be a vital catalyst for the expected explosion of the Mobile Web onto the market. For this explosion, all entities in the eco-system must take account of the following "Calls to Action":

- The continued development of mobile devices that allow the user easy access to the Mobile Web, both in terms of hardware and software functionality and usability.
- User education in the creation of mobile websites and the ability to search and discover relevant mobile websites.
- Adherence to standards and guidelines. For example, the W3C and the dotMobi guidelines for mobile site development.
- Stricter security for m-commerce similar to e-commerce. This will enhance the value of the Mobile Web to the user.
- Encouraging use of the Mobile Web to accelerate the inevitable progress of the Internet-in-your-pocket.

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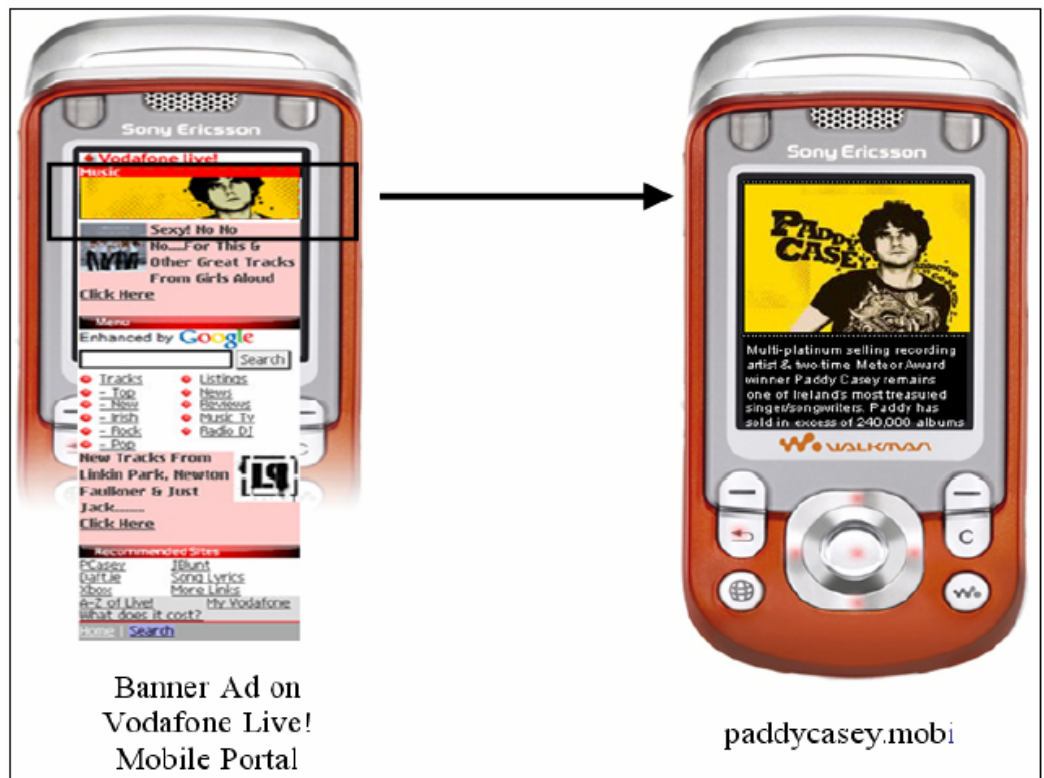
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Case Study: Paddy Casey

Sony BMG is one of the "Big Four" music companies and is owned by Sony Corporation and Bertelsmann A.G. Its roster of artists includes many of the biggest names in the music industry. In order to promote the launch of an album from one of their artists, Sony BMG turned to the Mobile Web.

Sony BMG initiated a large multi-channel marketing campaign for Paddy Casey's album "Addicted to Company Part 1" which was released in September '07. The mobile component of this included the placement of a banner advert on the Vodafone Live! mobile portal in Ireland, which promoted a competition to win tickets to a Paddy Casey concert.

Clicking on this banner advertisement brought the user to the mobile website <http://paddycasey.mobi>, created by Nubiq.



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According to Nicola Keane, Sony BMG; "We discovered Nubiq while searching for a suitable technology partner to design our first promotional mobile website. Nubiq offered the standards compliant services we were looking for".

From the mobile website, the user could discover information about Paddy Casey album as well as concert dates. In addition site visitors could enter their name to join the Paddy Casey mailing list and a chance to win tickets to a Paddy Casey concert of their choice.

The mobile campaign was a huge success with 2,327 total banner advertisement click-through's, and close to 20,000 page impressions over an eight week advertising period.

The core values of the mobile website included:

- The competition for popular music audiences is being fought on-line. Having a mobile website engages the audience since they can constantly keep up-to-date with their favourite artist.
- The Paddy Casey website, coupled with the banner advert, raised awareness among the target market before and after its release date.
- Encouraging awareness of the concert locations and dates meant website visitors were more likely to attend – regardless of winning the competition.
- Having the names and email addresses of fans, facilitates future solicited marketing campaigns.

The Paddy Casey website is an extremely good example of how a mobile website without a huge amount of content can be targeted to effectively and efficiently drive awareness and revenue.

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Industry Support



"Nubiq's success and innovation in the Mobile Web industry has been well acknowledged by the members of the dotMobi Advisory Group as well as through their direct commercialisation efforts." states Michael J. O'Farrell, Chair and Executive Director of the dotMobi Advisory Group. "To remain at the forefront of Mobile Web and mobile Internet developments, the team at Nubiq have really understood the value of industry best practices and published standards by diligently incorporating them into all their product and service offerings."

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About Nubiq:

If you are looking for a guaranteed directory of mobile websites, a discovery and social bookmarking service, or bespoke mobile advertising solutions; Nubiq can deliver. Nubiq breaks down the barriers to mobile web adoption, by providing a directory service of 1 million mobile websites. A user can discover mobile web content, bookmark and share it with friends and family, then submit their mobile website for specialised directory listing. Not only does Nubiq break down the barriers to mobile web adoption, they also seed entry into the mobile web by providing a mobile web presence creation service, directory and discovery services.

Nubiq are working with a number of European mobile Operators and are actively involved with the dotMobi Advisory Group (MAG) to define best practices and best models for mobile advertising.

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