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Radio, like the written press, the music industry and television, is changing. The changes to their respective environments are so significant that they entail more than just an adjustment: they require a comprehensive reappraisal.

The common characteristic of these threatened industries is the confusion which has grown up over time between their mission and its execution.

Essentially, it is a crisis of distribution, i.e. progressing from the model of traditional channels (radio and television frequencies, DVDs, CDs, newspapers, etc.) to the network model (the Internet). This crisis challenges these industries' economic model but not the needs they have to meet. We have never read more, listened to more music or watched more videos.

Case study: the written press

The mission of the written press to inform and entertain is complicated by the method it currently uses for printing and distribution: paper. The impact of this handicap is felt most strongly by the daily news press as it is obliged to present events which actually occurred the day before as the latest news. This addiction to paper is accentuated by the deep chasm separating the existing model in decline and an emerging model generating revenue which remains modest. Although the Internet became the leading source for written news in 2008, the advertising revenue generated by the audience of online newspapers is currently ten times less than that generated by print newspapers. Further, current terminals still do not offer the same level of comfort for the user as print newspapers and are a long way behind in terms of the visual quality and physical sensuousness of traditional magazines.

Nonetheless, an online press embracing electronic conversations and organised into a network of blogs and sources represents the dynamic and profitable future of this field, as demonstrated by sites such as *The Huffington Post* and *Politico*.

Case study: the music industry

The music industry's mission to provide the public with the music it wants is complicated by its chosen method of distribution: plastic CDs. Its dependency on polycarbonate has been exacerbated by the recent appearance of network distribution without reward for the artists.

The problem seems to have no solution: anything which can be freely duplicated becomes free; a music file can be reproduced, indexed and distributed at no cost. Music is consequently becoming free and losing all its commercial value. However, if it is to exist as an industry, music must be rewarded monetarily.

The solution lies in reassessing the past: music has always been free because it has been freely available in other forms as well as commercial CDs: recorded on the radio, exchanged between friends, recorded onto cassettes, copied onto CDs, etc. As soon as a product is available for free, what is being purchased (when it is purchased at all) is not the product itself but the service accompanying it.

Therefore, if a CD is purchased, it is not the music which is being purchased (because that is free), it is not an object (unless it is a collector's item), it is a service: the conditions of the availability of the music chosen.

This service rewards music. This service pays for music. Music's economic model has always been indirect and involved the intermediary of a service.

This reassessment of the past shows that the music industry is not confronting a new situation (free music) but a new form: free music on computer networks.

The music industry must be seen not as an industry creating content but as a service industry, investing first and foremost in distribution and secondly in the production and management of the related rights. Its service is to make music available at the request of all. In the past, this service was provided through the distribution of records. That is why we refer to *record* companies, highlighting their main added-value, distribution (a service), rather than calling them *music* (a product) companies.

Who provides the best service today? *iTunes*, an online service, combined with the *iPod* terminal. Apple's product, integrating software and equipment into an elegant and intuitive whole, currently represents the best way to organise and possess music, or even discover new music from a choice of ten million songs. The public has been quick to catch on: most of the music sold online uses this service. Recently, it exceeded six billion downloads.

In the face of such domination, record companies have evolved by developing a portfolio of often prosperous activities around their music: promotions and products for mobile telephones, by-products, concerts, association with music platforms, experimental funding of music through advertising, rights agents and managers, etc.

However, fundamentally record companies are suffering from not being *CD* companies and, above all, going down the legal path to defend themselves instead of using IT to better serve their customers.

The record industry's current struggle to become network music's leading service provider has led it to concentrate its efforts on managing music rights and consequently place itself in the legislative and legal field, something which was admittedly necessary but which has occasionally diverted attention from its most important mission: service.

Case study: television

Traditional television built its model on three pillars: dumb receivers (without IT intelligence), a limited number of channels and viewer passivity. Change came about because receivers became computers connected to a network, the possibilities of what was on offer became limitless and, finally, the audience entered into the action and became *spectators*.

The mission to entertain and inform through moving images has therefore become an online interface for small and big screens which proposes and organises access to moving images through all forms simultaneously: collaborative platform, a choice of programmes, live events, pastimes and *a la carte* flow. Of course, pre-programmed flows for a mass audience or more targeted audiences will remain but only as one option in a whole which is attractive to the typology of different income sources (advertising, subscription, renting, sales, etc.). The economic model will be the Internet model: advertising and users. The model will emerge from *Youtube*, *Apple TV* and *Hulu*.

Case study: radio

When a medium is created it occupies all the available space for unsatisfied needs. The appearance of a new method will subsequently reduce its territory and eat away at it until it is reduced purely to one exclusive advantage, the mission which it alone can fulfil. If it has no field of excellence, it disappears; if it is has one, it remains, re-focused on its irreplaceable particularity.

A little history...

For example, radio was the first electronic medium and originally fulfilled functions which were subsequently devolved to television: collective living room entertainment. Radiobased plays, operas and concerts occupied evenings and the receivers were pieces of furniture around which all the family gathered.

Television was a better spectacle; radio performances disappeared. It was reincarnated through the transistor which caused the price of receivers to fall and individualised radio's use. Mobility was provided through batteries and it became an indispensable accessory for cars.

Radio then became the first source of immediate information wherever you were. It became automatic to turn to radio to find out what was going on, from natural disasters to the results of football matches.

The baby boom generation seized on the transistor as the expression and lever of its emancipation, appropriating radio programmes and shows. Formatted music radio made its

appearance with notably the famous hit format: the Top 40. Radio became the preferred way to discover and listen to popular music.

The explosion in music radio expanded with the emergence of FM in the USA in the 1970s (1980s in France) which increased the number of channels available tenfold, opening radio up to more refined musical themes with stereo sound quality.

This diversity of music available on the radio occurred at a time when access to music was restricted. To acquire it, you had to go to a shop and choose from a restricted collection. Listening to cellophane-wrapped music in store was laborious and uncomfortable, when it was possible at all. Music was also expensive: a 45" record, a single song, cost 18F in 1983 (\in 5). For people who wanted to copy music themselves, recording songs onto cassettes proved to be mediocre, amateur, expensive and marginal. Finally, one of the main vectors of music news was the specialised written press where new songs could be discovered through written comments alone. These handicaps to the spread of music confirmed radio as the preferred channel for its consumption.

While FM was a breath of fresh air for music radio, from the 1980s news radio experienced competition from rolling news channels available on cable and satellite.

The arrival of the Internet and mobile telephones...

Throughout almost the whole of the second half of the 20th century, when we did not have access to the television or telephones, two fixed objects, radio was our only contact with the outside world, the only personal and mobile electronic link with news, entertainment and music in real time.

Mobile telephones changed all that: the personal telephone became our preferred connection to the outside world and talking with friends and family our favourite pastime, an impulse. The development of instant written news functions on telephone screens has also offered an alternative to news radio.

Mobile Internet (wave-based Internet via direct wireless emission-reception) and its related terminals as substitutes for current mobile telephones whose functions they will integrate, will in turn become a source of immediate information in direct competition with radio.

The liberation of music through IT occurred at the end of the last century. Digital songs on CD became files which could be freely reproduced at will and transferred first onto blank CDs and then directly into circulation on the Internet. The computerisation of an entire music catalogue and its uploading onto the Internet was at the root of the appearance of software and services to exchange, incorporate, select and share music files, and the creation of flows.

After just a few years, thanks to the Internet the public can listen to most of the world's radio stations online for free - tens of thousands of stations covering all possible themes

exclusively broadcast on the Internet (nearly sixty thousand programmes currently) - , access personalised flows according to taste and discover new music corresponding to its preferences and those of its friends thanks to social networks, search engines and affinity aggregators ("if you like this song, you'll love this one").

Similarly, services for mobile terminals have appeared such as *WunderRadio*, *allRadio* and *Tuner*, interfaces where the public can choose from among tens of thousands of programmes according to its tastes, pastimes and GPS location. These services are among the most popular applications available on the *iPhone*. This is hardly surprising: they make current radio receivers look like old-fashioned bricks.

Further, it is probable that these aggregative software interfaces will be shared out and monitored as soon as their strategic role has been affirmed and they begin to generate significant income. Although radio's audio output in itself may be sufficient for a programme, it would be wise to develop the full potential of its virtual reader. The audience and data generated by radio are part of its value and the configuration of its virtual reader is part of the station's personality and the service provided to its listeners.

By providing the title of a single song, a revolutionary service such as *Pandora.com* allows the public to create a suitable music flow from a fantastic basis of data which delineates each song into 400 criteria and then regroups them by similarity. Another site, *last.fr*, uses comparisons between its members' play lists to create personalised flows.

All music genres, however esoteric they may be, have their own dedicated music threads or ones which can be created in a few seconds.

All songs can be listened to as often as one wants, practically instantly and for free.

At the same time, over the last few years the evolution of mobile memories has meant that tens of thousands of songs can be stored in the palm of your hand and an entire themed, personalised music catalogue, whose programming is automatically organised according to the preferences provided, can be downloaded.

All generic or personalised music catalogues can be downloaded, rotated and listened to in the car or with an MP3 player and headphones.

The impact of such storage capacity on listening to the radio must not be underestimated. A gigabit represents about 250 songs. At the beginning of 2009 a commercial external 1 terabit hard disk, containing 250,000 songs, was the size of a paperback and cost about a hundred euros. According to the *Observatoire de la Musique*, the main French radio stations broadcast 63,454 different tracks in 2008 ...

A music flow includes two categories of information: the list and organisation of the songs on the one hand, and the corresponding music files on the other. A list of songs is not rocket science if it is in the form of a catalogue. Basic organisation can be achieved with basic software. As regards the files, as has been said a \notin 100 hard disk contains four times the combined programming of the most popular French radio stations. The radio library of most radio stations can be held on a USB key. These hard disks for individuals are generally connected directly or indirectly to the Internet. So if there is an update to be made, a few songs per week on the main radio stations, the list can be updated and the files downloaded as a background application.

Less time will be required than we might think for mobile terminals to achieve these storage capacities. Personal networks, wireless networked machines (social or family) will also serve as alternative and complementary resources for storing music. Storage is in itself a challenge to catalogue music radio.

America's two large radio bouquet companies, broadcast direct via satellite, XM and Sirius, are now merging and still making financial losses. They have had the bitter experience of ignoring the ability of car drivers to generate their own flows from their *iPods* and the imminent appearance of wide-ranging mobile Internet offers.

Further, this company has demonstrated that it was only generating interest on its live programmes and particularly its personalities. Hence the recruitment of Howard Stern, a famous DJ who disappeared into obscurity as soon as he abandoned his original mass media: FM.

This is also an interesting example of the symbiosis between a star and his or her medium: to exist a star must be able to be seen and heard by all. Michael Schumacher would never have won the Grand Prix with a pedal car. The attraction of a particular programme also depends on its audience. An opinion, a provocation or a laugh is much more powerful when it can be shared, live, by many people at the same time.

For now, all that remains for *Sirius-XM* are the pensioners who are wary of computers, driving through the great open spaces of the American West. Certainly, that can constitute a significant audience but it is not necessarily enough to justify two satellites.

Finally, to return to the technological and cultural revolution in progress, all programmes have rid themselves of time constraints in favour of *á la carte* listening, offering tens of thousands of different programmes on all subjects, available at any time and for which each listener can control the broadcast and progression from his or her receiver. These are the famous *podcasts* initially invented for the *iPod* and subsequently used as a generic term for audio on demand.

In the light of this changing paradigm, music radio is experiencing the psychological stages of grief, perfectly described by Elisabeth Kubler-Ross, a groundbreaking psychiatrist working with the dying: denial, anger, bargaining, depression and finally acceptance. With a few exceptions, the general mood has not managed to get past depression. This book seeks give radio a new perspective.

The first response: digital radio

As explained before, a medium occupies all the available space until it is eaten away and reduced to its very essence. The digitisation of music has deprived music radio of its function of free access to music. Consequently, radio stations whose function can be summed up as setting up a flow from a music catalogue can be replaced by more relevant IT offers.

Therefore, radio has been deprived of the privilege of being the only medium able to inform in real time and deprived of its vocation to provide free access to all kinds of music. What is left for radio?

The radio industry's response has been simple: let's digitalise radio! This is the same response that the music industry might have had if it decided to launch the CD in 2009 to counter the Internet (rather than in the 1980s).

There is often confusion between digital technology and the Internet. Digital technology codes information into a binary series from 0 to 1; the Internet is a network of electronic intelligence communicating via a protocol called *Internet Protocol* or *IP*.

Digitalisation is a step towards the Internet but it is not the Internet.

The digitalisation of radio conserves the essence of the analogue problem: broadcasting a unilateral offer on a number of restricted channels. It in no way resolves the current problem.

Supporters of digital radio have put forward six arguments:

- radio is the last electronic medium not to be digitalised so it must be done! As well as the overall weakness of this argument, it should not be forgotten that terrestrial digital radio is just a form of digital radio which has existed for 15 years on cable, satellite, telecommunications networks and the Internet;
- better sound quality: sound quality is a secondary asset which should be not substituted for a primary asset such as price and choice. The MP3 generation will confirm this. Further, the damage to hearing observed today makes most people unaware of subtleties which have become unperceivable;
- the possibility of combining it with visual data: the myth of the irresistible attraction of simultaneously displaying the CD cover of a song being played has endured for thirty years. Today, it has metamorphosed into a new idea: competing with all the Internet services by simultaneously being a guide, encyclopaedia, GPS, e-commerce,

etc. – and with a rare particularity: it is not interactive! Certainly, a return channel will be put together so it will be a question of doing less well what others do better or subscribing to existing services without added value for listeners in return for disappointingly modest revenue;

- the attraction of new programmes: how will they become economically stable and how will this new offer, only expanded by a few units, resist the infinite choice of mobile Internet?
- new advertising resources through the addition of a screen: it will be a question of adding to the advertising offer of mobile Internet. Certainly, this is a winnable challenge. But bear in mind that this method will not only be competing with other radio stations but also with all the market's online possibilities and interactive mechanisms;
- national cover: here is the deal remedy poor administration of the analogue spectrum with its 150 million receivers by upgrading to digital cover over several years with a currently inexistent stock of dedicated receivers (devices for that single use), a project where it is impossible to see from where growth can be stimulated following the example of TNT.

A comparison has been made with the success of terrestrial digital television, TNT. However, it is difficult to compare the two. TNT provides the viewer with three times more free programmes. TNT is assimilated into the arrival of a new generation of receivers for flat screens which offer unrivalled image quality. Finally, TNT can be received by analogue receivers once they have an adapter which allows them to use the existing equipment.

Further, digital television has national authorisation, a deployment schedule and, in parallel, a plan for the disappearance of analogue television.

Digital radio does not initially increase the choice of programmes, its receivers are no longer useful and its deployment partial with an uncertain schedule.

However, let's imagine that the supporters of digital radio are right. Why not? Nonetheless, digital radio is not the answer to the Internet challenge. A new tube is not the answer in the age of networks.

The question to ask is this: what is the essence of radio, i.e. the mission it is best at fulfilling?

The essence of radio

Radio has two essences, one relating to its content and another to its form.

As regards the essence of its content, radio is an audio presence. Presence means the coexistence alongside me of another human being with whom I share the present moment. Radio is both about humanity and immediacy. Radio is the audio link between another person and me at the same time.

Therefore, in radio there is an inseparable unity between the present and presence. To understand this better, it is necessary to read Goethe, something evoked by Pierre Hadot in his book *Don't Forget to Live* [*N'oublie pas de vivre*]. Goethe wrote to his friend, the musician Zelter, and shared his thoughts on the present and presence which in German are a single word: *Gegenwart*.

Goethe talks about an intense experience of the moment, a presence in the present and that is radio. It is only worth anything in that moment and in the human intensity which occurs at that moment.

The vector of that experience is sound. And sound is first and foremost a voice. Just as a penguin can recognise another among thousands, since time immemorial we have been able to discern a wealth of incredible nuances and emotions in the human voice. We owe our survival to our brain's ability to decipher the details of the voice, further heightening the effect of visual absence.

Pixar's digital masterpieces such as *Toy Story* or *Ratatouille* reproduce the most complex visual experiences like wet fur or the shine of bodywork with a computer, while the characters express their emotions as well as human actors. Despite these wonders, for the voices the studio uses actors, such as Tom Hanks or Paul Newman. A voice is more complex than an image.

It is therefore the voice which speaks to us in a conversation, between songs, and which constitutes that instant presence, that link with humanity, distant and yet close, invisible and yet imagined.

This leads us to the essence of the radio form: the absence of an image. That is the strength of radio: being able to communicate without using our eyes. Radio is an audio companion while we carry out another activity which monopolises our gaze. Any visual addition pollutes radio and weakens it.

The essential part of radio which distinguishes it and makes it unique is live sound.

And such life is incarnated by generous individuals who give their all to radio. Just listen to Diffol, Romano, la Marie, Cédric, Momo and Samy every evening on Skyrock to understand what I am saying.

It is expressed through speed, aptness, surprise, emotion, reality, listener participation, spontaneity, controversy, debate, discovery, the unexpected, sharing, etc.

Radio life is also expressed through musical choice. This involves talent, intuition, instinct and experience. It does not follow; it leads. It is readjusted through research but it anticipates with the heart. The best example is Laurent Bouneau, Director General of Programmes for Skyrock. A relationship of trust is established between the person programming the music and the person listening, and that is how the magic of radio is achieved: listening to music at the same time as hundreds of thousands of others and humming along or turning the volume up, together but without seeing one another. That is something which is felt. That collective vibration is like a positive shiver down the spine, like being at a sports stadium when a goal is scored.

That kind of radio has nothing to fear from the Internet. The Internet is not a threat but an opportunity and we will see why.

However, aseptic and predictable spiritless radio, presented or rather misrepresented by uninteresting individuals, is in danger because it can be replaced by an *Ipod Nano*.

A radio station programmed with one eye on the preferences expressed by focus groups is destroyed by online database algorithms.

The same is true of speech radio. If my toaster is connected to the Internet and can tell me, with just a glance at a mini-screen, about the situation in the Middle East, the monotone reader of the news on the radio is just a backup. Here again, it is the personality, the virtuosity and the view point which make the difference.

I should add that Internet radio stations are often integrated into a global economic model which exempts them from repetitive advertising slots, a major competitive advantage over an equivalent programme.

Go through current radio stations on the basis of that requirement and you will understand why many must have a drastic rethink.

The radio of the future has been brought back to its essence by the Internet: an audio presence. Presence as the present moment, presence as humanity and connection.

The current state of affairs

The added value of some radio stations is just the privilege of coverage with hundreds of frequencies. Much of their effort is focused on maintaining their situation at any cost. The shortages imposed on others was their selling point. They also supported administrative controls and censure. Such repression did not bother them because it did not affect them. However, and to their great benefit, it destroyed their creative competitors.

These institutional stations are under threat: there is no rarity or distribution control on the Internet.

Their last line of defence is the ubiquity of analogue radio: in France there are 30 million personal computers and 150 radio receivers. Five times more radios than PCs! Yes, now is definitely the time to move to digital radio without a stock of receivers...

To be serious, radio is everywhere; the Internet is essentially still only accessible via a piece of furniture (the PC) or at best a big book (laptop). The PC is only at the beginning of its transistor phase: massive deployment of personal mobile devices.

Traditional radio still has a distribution advantage. Further, from an ergonomic point of view the new services are not as accessible and easy to use as the traditional radio.

Finally, older generations are slower to adapt to novelty and traditional radio benefits from that audience and its inertia out of habit.

But those last barriers are being silently eradicated like wooden beams by termites. They are breaking down overnight because they have been mined for a long time.

Daily life is, little by little, being seized by modernity:

Mobile telephones fuse with the Internet to provide the mobile Internet terminal. At the same time Internet is freed from wires: the Wi-Fi mini-bubble was a first step; in the future Internet reception bubbles will have scope of several kilometres.

It means being permanently connected to everything and everyone. It means the ability to listen to audio programmes on the Internet on all mobile receivers with a sound restitution capacity.

Internet services are being reconsidered for mobility. The *iPhone* interface is the best example. Their use is becoming as intuitive and simple as the radio.

Finally, although adults are not among the first to adopt these new services, they (including pensioners) quickly become as experienced as the young as soon as they decide to have a go.

To understand what will happen to the radio market *in vivo*, just look at stations aimed at the new generation over the last decade. First, stations with predictable programming routines previously directed at the young have been refocusing on older targets. Only Skyrock, a live radio station *par excellence*, remains focused on the new generation, a generation which has helped make it France's leading radio station for 13-24 year olds with nearly four million listeners every day. And that priority towards the most dynamic audience, which is also the most receptive to novelty, also seduces an older audience as more than one million seven hundred thousand over 25s listen every day.

As the others fled, what happened at Skyrock? The Internet was a blow in 2006; it reduced the station's audience by about 10% and its advertising revenue by 15% compared to the previous year.

How does the Internet change the behaviour of young listeners?

Research, particularly from North America, on the new behaviour of these young audiences, and particularly Wi-Fi enabled households where adolescents have easy and autonomous access to the Internet via their parents' old PCs and laptops, have revealed several lessons:

- radio is no longer the exclusive or even main source of new music, listening to hits of the moment or music flows;
- some groups with a high level of education and easy access to the Internet and electronic devices can lose the habit of listening to the radio;
- the existence of an attractive radio offer for the new generation increases music consumption through all sources: radio, Internet, music purchases;
- the most sought after songs are those simultaneously broadcast on the radio;
- listening to music on the Internet uses up time previously spent listening to the radio and, above all, replaces listening to CDs;
- for one in three people, their personal music collection has become their preferred source of music;
- music choice has preference over the sound quality of songs: 1,000 MP3s favoured above 100 CDs;
- for two out of three people, the comfort of an up-to-date, inclusive programme, as well as the atmosphere of radio, still make it the preferred audio source;
- the number of stations listened to remains stable: approximately three. The first two stations are terrestrial and chosen from among the small number of available programmes. However, the third is often an online source chosen from among a considerable choice. That dispersal, or root mean square deviation, is a direct consequence of the range of programmes available on the Internet;
- most of the programmes listened to are in the mother tongue and share the cultural environment and time zone of the listener;
- listening to the preferred terrestrial station is also practiced on the Internet, even though it is possible to listen on a traditional receiver;
- the more the station is present on the Internet with a proper purpose, the more the numbers listening online are significant;
- listening to the radio while doing other things in front of the screen on the Internet is appreciated;
- listening to radio shows on demand remains marginal;

- the more a radio show is original and lacks an alternative, the less it is affected by competition from an online source at the same time;
- audio pastimes, such as video games, take time away from listening to music;
- habits are gained and lost very quickly;
- the more the Internet is the source of musical culture, the more that culture is eclectic and incongruous as compared to traditional divisions.

That effect of the Internet on the young prefigures what is now happening to stations in the adult world which felt the shock two years later, in 2008, following the adoption of music on MP3 players by people in their thirties.

Further, generalised use of *iPod* adapters in cars is bad news for catalogue radio stations: "the best of the 19XXs" can be downloaded on *iTunes*.

For radio stations whose only advantage in terms of programmes was overcoming the difficulty of access to music or information, the Internet is a downloadable death notice. For creative, music or speech stations, the Internet is a shock, yes, but it contains more hidden potential than disadvantages.

Tomorrow: distribution

The Internet is first and foremost a revolution in distribution. To better understand this, let us consider for a moment the future of broadcasting and telecommunications networks.

Currently, we have a whole range of wave length families and broadcasting methods for radio (OL, FM, T-DMB, DVB-H., etc.), a range for mobile telecommunications (GSM, GPRS, EDGE, 3G, HSDPA, etc.) and one for terrestrial Internet (Wi-Fi, WiMAX, LTE, etc.), not to mention direct satellite reception.

In the past when you bought a mobile telephone, you were asked which band you wanted. Subsequently, telephones became dual-band or multi-band and no one asked the question. The same will be true of networks. We are heading towards automatic networks: like the old frequency bands for mobile telephones, networks will disappear from users' fields of consciousness.

In the future, terminal receiver chips will be multi-standard and could even be reconfigured depending on the signals detected. When we access a programme, a communication or an Internet session we will know nothing about the networks used. A conversation could begin in a Wif-Fi bubble and continue in 3G with a few LTE segments but we will not know. This is now the situation when we use mobile telephones to communicate. We do not pay attention to the fact that, without interrupting our conversation, we have moved from one cell relay to another.

Electronic access will be managed in a package and consumer decisions will depend on the quality of the service and its price.

Against such a background of automatic multi-distribution / broadcasting, what will happen to listening to the radio?

Tomorrow: receivers

The traditional analogue receiver (the radio) will disappear to be replaced by the ability to listen to analogue and digital radio with a multi-standard chip equipping a terminal, a device or the on-board electronics of a vehicle. Radio, including analogue radio, will be heard via IT intelligence.

When we decide to listen to a station, with whatever device, we will seek the best and cheapest reception.

In the future, listening must be seen as network listening. Each of our receivers will be connected to others and possibly those of third parties who are entirely or partially admitted into our circle. The network will be synchronous and permanently updated. It will resemble a unique interface between one device and another, adapted to the screen size of our terminals.

A music file acquired on one terminal will be immediately available on all the others and possibly downloaded onto a distant server to be accessible from all our terminals. This era of automatic devices disappearing behind a single synchronous interface will enable us to be permanently connected to four areas of resources: *cloud* computing, the central individual or family server bringing together all our data, the network of our friends and the personal mobile terminal.

These four pillars can also be overlaid into a single network of IT resources spread over all nodes but usable as a single resource by each machine: each terminal can be a partial server in global distribution and an IT collaboration system – so-called grid computing.

While we wait for this revolutionary architecture of the future, the current phenomenon is the fusion of the personal terminal between on the one hand mobile telephones and PCs and on the other access to telecommunications and access to mobile Internet. The *iPhone* is a pioneer in this respect. Very small portable computers or netbooks, such as the *ASUS Eee PC*, are the traditional IT industry's take on that trend.

In the past, every action corresponded to a device or multi-function combinations, each essentially sealed off from the others: listening to CDs, recording, listening to the radio, etc. Purchasing music was an entirely separate activity like shopping. IT merges listening to music from a personal or outside source, recording, storage and purchases into a single service platform. This integration removes the viscosity and effort which preserved or

restricted certain actions: today we can buy a song, listen to our own music and discover new sounds almost as easily as listening to the radio.

As we have seen, with automatic networks and subsequently receivers the only visible layer left is the user interface and the services which accompany it. The latter will play a key role in the consumption of sound in the future because they are not only a means of listening but also tools for creativity and sharing: creating a play list, radio station, mixes, music, etc. Services such as *slacker.com*, *grooveshark.com*, *deezer.com*, and *live365.com* merge these consumption and creativity functions to expose and exchange preferences and programming with others.

It is probable that the personal terminal will become the leader of the orchestra, the tuning fork of all functions, capacities and services, because it will be the most used terminal. It will certainly be our interface for radio.

Above all, this is because, since the transistor revolution in the 1960s, radio has been personal and mobile, and these are the leading characteristics of pocket Internet terminals.

This strategic observation led us to request, successfully, the inclusion in law of a reserved frequency band for receiving radio stations on mobile telephones using the DVB-H format. DVB-H is particularly suitable for mobile digital reception of television and radio. As mobile telephone pools are subsidised by operators and generally replaced every 18 months, equipping mobile telephones with DVH-B receiver chips to receive mobile audiovisuals would open the way for a supply of receivers for terrestrial digital radio, unlike the T-DNB format (used for terrestrial digital radio) which is still seeking a supply of dedicated receivers.

The regulatory authorities argued otherwise, refusing to launch the call for DVB-H tenders for radio, their excuse being that the frequency band is overly restricted and therefore it is impossible to meet demand. I should clarify that this is the administration which had itself reduced the frequency band to a minimum, preferring mobile television projects with greater economic uncertainty. Finally, let us make clear that this was the first time this administration had judged it impossible on principle to allocate a resource because of its rarity - precisely the definition of its main mission.

This strange debate will not end on the banks of the Seine but rather in Seoul, Espoo, Cambridge or Santa Clara where multi-standard chips for all terminals are developed.

The radio company's choice

For radio companies, the choice will be between analogue or digital broadcasting at a fixed price (the cost represented by a broadcasting point does not vary depending on the number

of listeners) or at a variable price (the bandwidth consumed is invoiced to the company and the user).

Programmes with poor audience figures should use the Internet. However, programmes with strong audience figures will find savings in using networks with fixed costs, although it is difficult for smaller players to access them. Programmes lying between the two can only suffer greatly.

The tipping point between broadcasting at a fixed price and broadcasting at a variable price will depend on the bandwidth price and the broadcasting cost. It is likely that the argument will be applied audience base by audience base.

The price of bandwidth is, along with copyright, the market's essential piece of information.

According to the main offers on the market, bandwidth (the flow of outgoing information measured in bits per second) costs an individual (including hosting necessary server(s)) on average &25 for 100 megabits / second at maximum flow. That means that an amateur Internet radio station with a per second flow rate of 128 kilobits, i.e. 64 kilobits per channel (the meeting of the two channels permitting stereo) can have a maximum instant audience of 1,000 listeners for annual broadcasting costs of &400 per year. The same service at professional standards and with professional guarantees would, depending on the services provided, range from &15,000 to &50,000 per year for the same peak audience.

Add to this burden music rights which, if not calculated as a percentage of turnover (the legal licensing mechanism for terrestrial stations), must find another basis: operating costs, the number of songs broadcast, etc.

Of course, voluntary status is rarely sustainable and a programme which goes beyond the amateur stage will consequently end up generating staff costs.

As well as the fact that collecting revenue generates its own costs and obliges significant audience levels, the revenue possible barely exceeds one euro per thousand audio contacts per thirty-second message and competes with all the offers installed.

Although an independent micro-station can be successful, upscaling is dangerous because it quickly generates high fixed costs, costs which accumulate in expectation of profitability. On the Internet the barrier is not at the entrance but at the half-way point. Thus far, on the Internet success kills.

A current terrestrial radio station broadcasting on mobile Internet with an instant national audience of three hundred thousand listeners, peaking at five hundred thousand, would cost more than a dozen million euros a year, compared to four million euros for national cover via FM.

Such differences show why traditional broadcasting, where the number of programmes is limited to about 15 by the administration and the physics of the frequency plan, is today an extraordinary economic asset in a multi-network world.

The bandwidth price must be cut in three to compete with analogue terrestrial broadcasting. The price of bandwidth and hosting is currently dropping by approximately 15% per year. At that rate, it will only take a little over five years for the cost of broadcasting on mobile Internet and analogue radio to be aligned.

The cost of terrestrial digital broadcasting with the T-DMB format is the same order of magnitude as analogue broadcasting.

It will be difficult for radio stations to broadcast in two ways simultaneously, analogue and digital, when, at the same time, the cost of bandwidth on the Internet begins to increase.

When the pool of multi-standard receivers reaches the current level of the analogue pool, substituting a digitally broadcast signal for the analogue signal could be envisaged.

The Internet has made it possible for anyone to produce radio programmes. The entire audio offer will be found on mobile terminals and multi-standard receivers with access as easy as current traditional radios.

That is fantastic progress.

Radio's economic model

Terrestrial radio

Radio is free for its listeners and financed by advertising, i.e. by marketing listeners' attention.

In France, approximately twenty national programmes constitute more than 80% of advertising revenue and about one hundred local and regional programmes constitute most local advertising revenue. There are a thousand radio operators in France.

It is always interesting to study the American situation because it acts as a reference – not only for those who naturally look to the other side of the ocean for all the answers, but also for the financial community for which the North American market is often the best prospective indicator.

Radio experienced an auspicious period in the United States between 1980 and 2000. In 1995 radio represented a little over 10% of media advertising investments, or \$12 billion. Prosperous radio stations generated results equivalent to 30% of their turnover. In 1995 regulations on ownership of several radio stations in the same market were relaxed. This allowed the *Clear Channel* group to carry out a number of acquisitions; today, it owns about 900 stations with combined revenue of \$3.5 billion in 2005.

The *Clear Channel* policy targeted profitability by standardising and homogenising programmes. Audiences considered risky and insolvent, such as adolescents, were abandoned. Further, morning shows, already attacked by influential puritanical groups and repeated fines from the authorities, were sanitised.

As a result, radio stations were reduced to simply playing lists of tried and tested hits aimed at an audience aged from 25 to 49 and hosted by DJ-robots. These flows were burdened with a maximum of advertising slots. Like a plane whose engine is shut off to save fuel and keeps flying for a few moments, the system seemed to work.

Then it began to show the first signs of weakness at the very moment when the younger generation was seizing the musical offer exploding on the Internet: the number of 18 to 24 year olds listening to the radio has dropped by 20% over the last ten years and 85% of adolescents now find their new music on the Internet.

In 2007 radio's turnover was \$20 billion and still represented about 10% of the media advertising market but it is a decreasing trend. For now, the years of generous cash flow are over.

However, despite everything, according to the *Institut Arbitron* radio audiences continue to grow (93% of the population listens to 18.5 hours a week on average!) but the length of listening time is dropping. But this indicator of the strength of the medium has not eased the moroseness dominating the American radio market.

In the United States, as in Europe, radio is suffering from commercial competition from the Internet (which already exceeds it in advertising income in the USA) and competition from new non-radio audio alternatives. Further, attempts to digitalise the analogue model have been disappointing (HD Radio in the USA, DAB in Europe). These hybrid transitions are not viable and satisfy neither listeners nor editors. The outlook looks bleak.

This feeling of reaching an impasse has led to the current lack of interest in radio by the financial sector, which will have an impact on the strategy of media groups if it is continued and might lead to restructuring in the sector.

The end of the assembly line model with its mindless music flows will devalue the stations which prospered under that system. However, creative stations, previously judged to be risky as talent always is, will represent the only aspect of growth in the radio world.

Internet radio

There are tens of thousands of radio stations on the Internet, either retransmissions of traditional terrestrial stations or stations broadcast uniquely on the Internet: Internet radio. For most, bandwidth costs are not covered by possible advertising revenue (banners or commercial links) and subscription models have failed.

A minimal but personalised model for online radio seems to be emerging from the experience of *radioparadise.com*, an eclectic rock music station hosted by a Californian couple. The station's only source of funding is online donations from listeners and it appears to be viable.

The large bouquets of audio flows integrated into global subscription offers such as *AOL*, *Yahoo*, *Rhapsody* and *MSN* have proved not to be profitable and, moreover, the rights issue has not been resolved.

From this we can deduce that radio is moving from one ecosystem to another.

The changing ecosystem

The hierarchy and size of traditional media have been shaped by the rarity of channels. That rarity (three national television networks in the United States for nearly half a century) has been the cause of a formidable concentration of resources and means for a few relatively static companies.

The Internet is freely accessible with almost no barriers and is founded on a very rich ecosystem, perpetually renewed from the bottom up, creating all kinds of prosperous micro-economies and successful small companies. At the top of the hierarchy are companies mastering two IT codes: a successful service and its remuneration. In the middle, unprofitable successes, be they transitory or not, are in a precarious situation.

The beasts from the analogue age lose their main privilege on the Internet: their oligopoly of access to the public. Occasionally, that privilege represented almost the entirety of the added value of their service - hence their determination to limit the distribution of their competitors.

On the Internet what makes the difference is no longer the channel, it's the programme, the IT programme, the instructions made to a computer's processor. The *Google* search engine is not number one because it accesses more computers than its distant competitor, *Ask*. It is number one because the IT programme for its service is the best.

A successful programme is only valuable if it forms a whole with a unique service: *Google*'s search algorithm and the management programmes of its network of server clusters are an exclusive service which cannot be downloaded on the Internet.

An exclusive service is only valuable in the long-term if it can be remunerated. That is the case for search engines with the *AdWords* software which inserts targeted textual adverts, paid for by advertisers when they are clicked on by users, onto the pages of results depending on the words searched by users. The cost of a click is fixed by a bidding mechanism for key words.

In the past, people used to talk about *content* to qualify the information included in the various traditional vehicles or *containers*: press, cinema, television, radio, CDs, books, etc. The Internet has separated the two: information has been separated from its original medium to become an autonomous source. A newspaper article can be read without the paper version in your hand or even looking it up on the newspaper's website.

This separation has not only divorced information from its medium but also the adverts which accompanied them. There was subsequently competition between the *containers* and the sources stemming from them, as well as with aggregators of sources such as *Google News*. Not only can these sources be reproduced at will, they can be altered and changed by anyone.

The copyright nightmare has led to a phenomenal devaluation of information in all forms and simultaneously opened up infinite sources previously inaccessible to most.

If one wanted to be provocative, one might call yesterday's *content* today's *duplicates*. Their value on the Internet comes partly from the efficiency of the coercive measures limiting their illicit reproduction and also from their integration into services enabling them to be indirectly remunerated.

In an economic ecosystem, power comes from combining possession of the rarest resource with intense use of the most abundant resource. For example, if the cost of bandwidth and data processing continually drops (which is the case) they must be incorporated as much as possible to create a competitive advantage. If data processing and bandwidth represent 30% of my costs and drop by 15% per year, my overheads drop by 4.5% per year. If that resource represents 50% my overheads drop by 7.5% annually.

What are the rarest resources?

Of course, there are still some virtues common to the analogue world: reputation, notoriety, clientele or audience, network of partners, talent, know-how, team spirit, size and profitability, etc.

Four other advantages can also be added to the Internet which cannot be reproduced by simply copying: social networking, the symbiotic relationship, the online service and the present moment.

• social networking: if you have a hundred or so friends on a social networking site, that relational network and its history cannot be easily transferred onto another service;

- the symbiotic relationship: an Internet service evolves with the preferences and choices of its user to establish a unique continuity between the user and the service. That functional interdependency requires considerable reciprocal training to be reproduced. Who wants to learn how to use Windows again? Further, the symbiosis is not only individual but collective: the online store *Amazon* integrates user contributions, such as book reviews, which are much harder to reproduce than price reductions or product catalogues;
- the online service: the idea is to make the programme, the service and its economic model inseparable in such a way that they form a whole requiring significant investment from competitors to reproduce it. This is the case for network gaming, search engines and social networking sites which combine complex services, significant IT investment and high level skills;
- the present moment: the more a service is correlated to the present, the less it can be reproduced as what is copied is what *was* and not what *is* - it will have changed in the interval. Some news sites therefore update their home pages every minute and remain unique.

These new Internet values can increase their revenue by integrating sources into their service and therefore remunerate them.

This ever changing ecosystem is so dynamic that it is destined to absorb or marginalise the other models.

Traditional radio stations on the Internet

How did stations envisage their presence on the Internet? For most, it was purely a broadcasting method and additional promotion in which they invested with care. Most did not consider that the Internet would eventually become the dominant distribution method.

Some took the initiative to create web radio stations, adding their flows to the multitude without either gaining significant audience numbers or hope of profitability.

Skyrock is an exception. It is one of the rare traditional media which has metamorphosed, i.e. reinvented itself on the Internet to achieve what had inspired its initial creation: free popular expression of the new generation. Achieving that mission on the Internet was not about creating an additional web station but involved the creation of a social networking site which has become one of the world's leaders with more than 35 million members.

Extending the station's participative vocation in that way has made it a real radio community where the Internet and mobile telephones have renewed the presence of listeners on the radio orally but also via tens of thousands of daily messages sent to the station in the form of text messages. Add to that the ability to put members of the audience in touch with others on the network through blogs, profiles, chats and messaging. That relationship extends to music blogs where anyone can put online and share audio creations. These songs are then integrated by users into their profiles and their blogs are promoted by networks of friends. The anonymous audience of the past has become a vibrant and creative electronic community.

However, in general the radio industry's current response to a change of this magnitude has been disappointing. That is why there is a feeling that radio is living on borrowed time, waiting like a terrified hedgehog for a collision with the Internet truck speeding up with its headlights on.

The question is, what is the future of radio as radio in an Internet world?

Radio on the Internet: Internet radio

We have already partly answered this question by demonstrating that radio, when defined by its essential mission (audio presence), has a bright future. That is the key in terms of programmes.

But that is not all. The next stage needs reflection. Good use must be made of the formidable technological lever that is the Internet. Internet radio must be considered: radio using the potential of the IP communication protocol: IP radio.

On the Internet, information transmitted is in response to a request from a machine identified by an IP address.

The response is transmitted on the network, divided into packets. Each packet is supplied with a header which contains the IP address of the sender and the addressee, as well as other information required for transmission.

The packets are transmitted on the network without a connection circuit being determined in advance. The reception address is encapsulated in the header which will enable them to be directed through the network via message switching computers, rooters. The message is then pieced together, packet by packet, by the receiving machine.

Thus, what each machine receives is not a single flow for all, as in traditional broadcasting, but an individual flow destined for it alone and repeated as many times as there are machines making the request.

When the Internet is used for traditional broadcasting each individual flow transmits the same radio programme.

An IP radio station can differentiate between its outgoing flows, according to the known characteristics of the IP addresses requesting the information.

This process means that a common programme can be maintained but advertising slots can be targeted, IP address by IP address.

In effect, in the flow of programme packets, it is possible during the advertising slot to insert an individual flow into one or a series of addresses corresponding to precise characteristics.

The half a million listeners who listen instantly to Difool's morning show on Skyrock correspond to various characteristics. The same station can attract very different people which is how a large station becomes successful. The addressing process of IP radio means that people listening to the same programme can hear different adverts which correspond to their needs. Such multiple, simultaneous targeting is good news for advertisers which can concentrate their investments on suitable targets, for radio stations which can better serve their clients and are therefore more attractive, and for listeners who will hear adverts which are more relevant to what they are interested in.

IP radio combines radio's power as a mass media with the advertising precision of the Internet.

How can an IP address be qualified, as it is occasionally random on some machines? Identification of the machine can be reinforced via a small file left on the hard disk (cookies) or through a code entered by the user at the start of the session (login) which identifies the individual. Moreover, the generalised spread of mobile terminals and their use for telecommunications will increase relevance between user and machine. This is currently the case with mobile telephones which are even more individual than PCs.

Finally, users of social networking sites can obviously be identified when they access their blogs or profiles. That identification correlates with an IP address and an individual, as well as the sum of information he or she has put online about him or herself. This constitutes a basis for qualification of the contact.

The vocation of social networking is to become the mobile software interface for our electronic relationships with others and it will be achieved principally through pocket terminals. The social network and its accompanying list of friends and tools for electronic communication (messager, email, chat, sending images and videos) will integrate the voice function of current mobile telephones and on a mobile terminal will substitute today's rudimentary address book.

There will therefore be unity between the IP address, the terminal, the person, their published data, their telecommunications, their media consumption and their online and off-line consumption (if the terminal is also used as a payment terminal).

Finally, the fact that the IT intelligence of a single person or a single household will be on a network and will exchange information, thereby facilitating *rapprochements* between devices and users, must also be integrated.

Of course, use of this data will have to meet strict standards as regards respect for private life and the express agreement of those involved when necessary. Moreover, the information gathered will be rendered anonymous before use.

IP radio and social networking will be accessible through the same personal terminal. Skyrock's strong point is its ability to coordinate these two media.

An IP radio station can therefore address an audience identified machine by machine, individual by individual. It is probable that this level of precision will not serve a purpose as such and there will not be a generalised spread of individual messages. These messages are, above all, targets aggregating several characteristics which will be privileged.

The IP address will also help with identification of the receiving device (personal receiver, in the living room or in the car) and choose the adverts, depending on whether listening is occurring individually or collectively, in the bathroom or in the car.

As well as demographic and behavioural segmentation, IP radio makes geographical targeting possible, either by using localisation through triangulation of mobile telephone masts or quite simply by using the data in the terminal's GPS module.

Data gathered from the sensors of networked terminals can also be a source of targeting: a fast-food restaurant can generate a message to all listeners nearby during an advertising slot.

A movement sensor could advise on physical activity while the machine could transmit information about how to use it.

Someone listening to the radio just after looking at an automobile website could hear an ad hoc advert via the radio. This coordination could very possibly be expanded to other IP media consumed by a defined user. Audio adverts could also integrate personal music consumption in return for specific advantages.

Identifying listeners also means that the so-called *capping* Internet technique can be adopted. This limits the number of times a user is exposed to an advert in a given period. For example, after presenting an advert three times it is changed for another. As the optimal number of exposures is well known, advertisers will avoid spending money for diminished returns and listeners will avoid the monotony of repetition.

The IP radio audience can be measured at any moment as each IP terminal can calculate its connections to the Internet in real time.

On that point, the receiver's IT intelligence will become the central device for measuring audiences. This does not challenge the current technique of listener surveys which is a good indicator of the memory-based impact of the station which will helpfully shed light on the measurement taken from the receiver. However, it downgrades all the plans for measuring radio audiences passively with small electronic devices worn by a sample group of listeners recording, for transmission, two inaudible identifying signals emitted by audio sources. This project is still relevant, complementary, for measuring involuntary, collective or public listening (in car parks or supermarkets for example) but not for measuring the station people have chosen to listen to.

The instant measurement of IP radio therefore means that characterised audiences can be aggregated in real time on several stations simultaneously through the creation of instant ad hoc couplings of targets which could be marketed instantaneously via management combining stock market mechanisms and optimised sales management (yield management), particularly used in air transport.

Advertising addressing does not necessarily require IP logistics, but rather an intelligent receiver. In effect, imagine that a multi-standard chip, capturing and reconstructing an FM signal, could make itself identifiable by the radio's server so that the server downloads ad hoc adverts to the receiver through wireless Internet or through a sub-carrier service (secondary modulation of the FM frequency particularly used by RDS to display the name of the station on the car radio screen).

This receiver could download suitable messages and reinsert them into the analogue programme according to a timetable or inaudible signals. Further, radio messaging protocols must be explored further (remember *Tatoo*, *Tam-Tam* and *Koby* in the 1990s), something which enabled information for identified receivers to be transmitted via radio broadcasting.

Advertising addressing within non-IP audio flows by intelligent receivers will not have the fluidity or effectiveness of all IPs but it must not be neglected. Moreover, it will certainly be facilitated by the data channels of digital radio in DVB-H format or in T-DMB format which would find a suitable use for an intermediary period.

Advertising on IP radio therefore also clarifies what advertising could be on visual Internet. With one extraordinary advantage: the absence of images. IP radio does not use the eye or the hand; it accompanies all activities.

Future generations of professionals purchasing airtime will wonder how the radio advertising market functioned without such immediate qualitative and quantitative information. Today, advertising messages are placed and sold according to audience surveys carried out over the previous six months or quarter. Audiences are statistical extrapolations established from a sample's memory of what it listened to, questioned over the phone. This declarative measurement specifies a minimum of socio-demographic criteria (extremely unsophisticated compared to the complexity of purchasing behaviour).

Let us add that the recognised quality of some of these studies is perverted by the interests which calibrate samples to guarantee positions: measurement of radio audiences in France begins with thirteen-year-olds but there is nothing to prevent it beginning with eleven-year-olds. An entire industry has experienced this biased fudge for 25 years.

Of course, the chain of expertise, from the recording studio and the media agency to the advertiser, has been able to overcome these failings through experience and professionalism. But this demonstrates above all the extraordinary efficiency of radio which has proved to be profitable for advertisers despite its imprecise measuring methods.

Imagine then what such efficiency could become when combined with the atomic precision of IP adverts.

I might add that the eye can tolerate several simultaneous visual sources while the ear finds it difficult to bear the co-existence of two audio sources and always prefers a single source. This is a real chance for audio advertising which could do without visual obstacles because of our own physiology.

It is probable that all audio flows and radio stations broadcast on the Internet will adopt advertising addressing of this kind and, bit by bit as it increases in power and its applications and mechanisms evolve, IP radio will be imposed as the way forward.

Live, addressable IP radio will integrate a particularly rich audio environment, including software management of personal audio collections, communication and sharing on social networking sites, bouquets of themed and personalised flows, not-for-profit radio stations, stations from micro-companies, retransmission of all international stations, as well as any hybrid formula imaginable.

Traditional radio stations in the IP radio world

What is the advantage of traditional radio stations in this ultra competitive environment? We have already discussed how radio stations managing music catalogues or consensual *blah blah* discussions might be marginalised. What will remain are live radio stations, be they music, speech or a mixed format. As well as the savings to be found in their broadcasting method, as discussed above, they will have two advantages: advertising advantage and corporate advantage.

The advertising advantage

There are two elements: speed and integration.

First, speed:

Terrestrial radio stations currently have phenomenal audiences. Skyrock has more than 300 thousand instant listeners or four full *Stade de France* at any moment. All the stations currently broadcasting online in the USA, whatever their origin, together barely exceed half a million instant listeners.

The strength of traditional mass media is their capacity to reach a maximum number of people in a very brief space of time. The strength of electronic mass media is speed.

There is no reason why migration towards IP radio cannot be achieved in the best possible conditions, including with increased audience figures. The advantage of the mass audience, and therefore the speed of message penetration, will be combined with the precision of constantly increasing targets.

Then, integration:

A live radio station is about real people addressing others. That connection quality is based on a relationship of trust, like in friendship, and there is a duty to tell the truth, particularly as regards advertising. Listeners must be able to distinguish between the programme and advertising.

Such restraint, at the foundation of the authenticity of the message, does not prevent advertising integration. The contrary is true - and with redoubtable efficiency. The principle is to integrate a brand into the programme transparently and clearly for listeners and to say what one wants about it, with the exception of disparagement. The best example of this kind of creative advertising is the integration of Doritos tortilla chips into The Colbert Report, hosted by Stephen Colbert on the American cable channel, Comedy Central.

Such vibrant advertising will be exclusive to radio stations, assisted by the hosts' talent and making the exercise as much fun as it could and should be

The corporate advantage

At this stage, traditional radio stations cannot be reproduced on the Internet. The Internet cannot currently generate services which can rival the capital of the brand, know-how, combinations of talents, experience, audience, clientele, turnover and profitability of current radio stations.

This advantage is temporary. Some traditional media companies have been able to use it to their advantage to take their place on the Internet; others have not.

In conclusion

There must be no fatalism: the hedgehog does not need to be crushed by the truck. It has the chance to take the wheel. Traditional radio has an extraordinary field of possibilities before it and a positive destiny.

I might add that one radio station is pioneering that change: Skyrock. Henceforth, the experimentation of IP radio begins with the virtual readers of our radio website, *skyrock.fm*. Our leadership on the Internet, globally, puts us at the heart of its new disciplines and ascendant logic. We are one of few stations whose culture, history, skills and results are assets for succeeding in this new world.

Written on 12 January 2009 by Pierre Bellanger, Founder and Chairperson of Skyrock

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