Web and mobile convergence: Continuities created by re-enactment of selected histories

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Abstract
This article examines the evolution of the ‘open mobile web’ during its early phase of development, at the time when third-generation (3G) mobile networks were first launched. The ‘site’ chosen for the study was T-Mobile, a global mobile operator that was developing Europe’s first open mobile web service. Through interviews with its employees, the analysis shows how a change took place in the self-reflections of the telecoms industry with regard to the ways it was using various historical narratives. That rhetorical adjustment tied the mobile industry to the World Wide Web and its industry but did so in complex and contested ways. The analysis of this period of development is shown to have constituted the formation phase of the contemporary complexities of the ubiquitous web and its industries.

Keywords
Auto-communication, dialogic control, fixed-mobile convergence, media evolution, mobile web, T-Mobile, web-media history

Introduction
Web and mobile convergence has a long history. These communication platforms paralleled one another in terms of their take-up by mass audiences in the 1990s and, as a result, the dream of merging them was quick to emerge. The concept of ‘market convergence’ between the fixed and the mobile markets was acknowledged, for instance, in the European Union’s (EU’s) 1994 green paper on mobile communications. This was also one of the initial motivations to work on third-generation (3G) network standards, which partly underpinned the working out of strategies for the ‘technological convergence’ of networks. By 1997, the concept of fixed-to-mobile
convergence was sufficiently conventionalized for the EU to envisage it as a feasible goal and to suggest a linear mechanism for convergence in terms of (a) technology and network platforms, (b) industry alliances and mergers, (c) services and markets, and (d) policy and regulations.²

Despite work on harmonizing the networks and their underpinning technological standards, the convergence of industries and markets was a long-term process. The complexity of that is exemplified by the evolution of the ‘mobile web’. In 1999, the first user platforms of the ‘mobile Internet’ started to emerge – in Japan, the incumbent mobile operator NTT DoCoMo launched its i-mode platform and, simultaneously, a nascent mobile industry body, the Wireless Application Protocol (WAP) Forum, standardized its new service protocol. These developments were very significant in their historical context. These early standards, one celebrated as an exemplary success (Funk, 2001), and the other generally disdained as a failure (Sigurdson, 2001), both can be regarded today as the ‘mobile web proper’. Created and standardized by telecommunications industry institutions, they were differentiated technologically from the ‘regular web’ (the World Wide Web, then mostly known from desktop and laptop computers) and were designed principally for small devices that fit into a pocket. They were immature but autonomous forms of standards. At that stage, they were set to emancipate into self-sustaining new media platforms, with their own distinctive usage patterns, functionalities, and media forms. However, with the launch of 3G mobile networks and advanced handsets, the telecommunication industry’s focus started to move toward enabling access to the regular web. This article focuses on the motives for that change and on its repercussions for the telecommunication industry itself.

The analysis is based on the findings from a study conducted in 2006–2009 in several European countries and in the United States. The study consisted of several sub-studies and employed two different methods. The first being a semiotic textual analysis on the nature of the mobile web sites at the time (Ibrus, 2010, 2014a). The second method was semi-structured interviews with the representatives of industry institutions and enterprises that were actively engaged in establishing the technical and economic characteristics of the mobile web as a new media platform (Nokia, Opera, W3C, BBC, ProSiebenSat 1, Axel Springer, Microsoft, dotMobi, AvantGo, Segala, and several others). An adapted version of Foucault’s archaeological discourse analysis was applied on the interview transcripts to interpret the communicative interactions between these stakeholders. With these methods and sub-studies combined, I aimed to give a comprehensive overview of the dynamics that shaped the early phase of the mobile web evolution.

This article here reports on a specific sub-study of this larger project. Namely, one ‘core site’ for the investigation was T-Mobile – a global mobile operator owned by the German telco Deutsche Telekom, and this article draws principally on the results of that component of the study. Why focus on T-Mobile? The approach that most of the world’s mobile operators initially shared regarding ‘data services’ was to become, to a greater or lesser extent, content providers themselves. This was especially so for the ‘tier one’ global mobile carriers that were active in the developed countries. For example, Vodafone, Orange, and 3 (Hutchison Whampoa) started out by developing their own portals in the form of ‘walled gardens’³ as the first and main environment for their customers to access media content. T-Mobile entered its European markets with its 3G service slightly later than some of its competitors and soon adopted a different approach. In spring 2005, it decided not to limit its customers to its portal (‘t-zones’) but to offer access to the regular web via a service called Web’n’Walk. Initially, its pricing plan allowed for limited data usage (40 MB a month) for a set price (£9 per month in the United Kingdom), but after 6 months T-Mobile UK introduced virtually unlimited browsing for a flat fee of £7.50 per month.⁴ Although T-Mobile remained exceptional for some time, other operators gradually followed suit. It could be argued, therefore,
that T-Mobile paved the way for the ‘open mobile web’, at least in leading markets in Europe. The
term open mobile web refers to the possibility to access all of the web’s content from one’s mobile
terminal without restrictions. In this article, I examine the extent to which it was due to T-Mobile’s
position as a transnational player in the mobile services market that a discourse on open and unlim-
ited mobile access to the web came to be inserted into the discursive constellation related to the
global mobile media domain as a whole. The article suggests that this discursive shift and the new
tensions it introduced are historically significant since the question on the openness of the mobile
web platform and the alternative it presents to ‘apps’ (as more closed and proprietary forms of con-
tent presentation) continue to be central to the current disputes that condition the further evolution
of the web as a cross-platform medium.

A distinctive approach to convergence

Convergence is a concept with many implications. Fagerjord and Storsul (2007) suggest that the
term serves as a rhetorical device denoting the complexities of the modern media evolution. This
suggests that the convergence processes could be constituted by a multitude of ‘dimensions’, for
instance, ‘network convergence’, ‘terminal convergence’, ‘service convergence’, ‘rhetorical
convergence’, ‘market convergence’, ‘regulatory convergence’, or ‘industry convergence’. All
these dimensions may be understood as being autonomous – often to the extent of being con-
flicting, facilitating on one level ‘divergence’ and on other level ‘convergence’. For instance, the
emergence of ‘transmedia storytelling’ may be understood as being derived from convergence on
the level of networks but also from the continuing divergence of media forms, medium-specific
business conduct, and so on. Yet, in other instances, the dimensions of media convergence may
be understood as being interdependent, that is, as mutually conditioning and co-evolving. This dis-
cusses exactly such instances when the mesh of such dimensions evolves organically, enabling the
convergence of one ‘medium’ as a bounded domain with another.

The convergence of social domains (e.g. media industries) is, in an ideal instance, a process that
effects innovation. When two domains converge, something new may emerge out of their com-
bination. However, convergence is also a process of creating sameness. The two social domains
that may be in the course of converging must establish a dialogue and gradually adapt to each
other. The question, however, is which of these domains, then, needs to adapt more, losing more of
its autonomy in the process; what social dynamic shapes this power relationship and how is their
convergence motivated? Following Juri Lotman (1990, 2009), the securing of a system’s autonomy
is enabled by its ability for auto-communication, that is, by it being able to define its distinctive
values and features and as well as its constitutive rules and norms and to communicate these sys-
tematically to all the agents that participate in constituting that particular system. Systems’ conver-
gence, at the same time, is facilitated by their parallel ability for dialogic communication, by their
openness to information exchange. Conceptually, it is, then, the tension between these two func-
tions – auto-communication and dialogic communication – and their specific historically circum-
stantial balance that may determine the result of the convergence process. Empirically, the
question is which of a given set of converging systems is most effective in retaining continuity with
its own past, in reproducing some of its autonomy and its distinctive features in a newly converged
system? To understand how systems do both – how they maintain a balance between securing
autonomy and enabling convergence – it is helpful to draw insights from two traditions, that is the
cultural studies and techno-economic innovation studies. I propose such interdisciplinary dialogue
since the evolution of media technologies must be affected by both of these dynamics.
First, what are the dynamics facilitating diachronic continuities in technological systems that might apply to media such as the mobile web? In innovation studies, the central concepts for understanding this are the ‘path dependency’ and the historical ‘lock in’. David (2000) for example argues that in cases of technological innovation where there is an advantage in sharing a common system (as in the case of most media content platforms), there is a point when spontaneous decisions of users create such strong positive ‘feedback’ that one technology becomes locked in, driving out the others. The technology system at this point is at risk of becoming stabilized and path dependent, unable to shake free from an evolutionary pathway or trajectory which is shaped by the characteristics of the ‘surviving’ technology. However, Lundgren (1991: 70–71) suggests that, in addition to positive network externalities at the end-user level, there are also a few other sources of feedback that may lead a system to path dependency, such as technological interrelatedness (where the functioning of the parts is contingent on the functioning of the technological whole, which could deter revolutionary changes of the parts). A similar role could be played by ‘industrial networks’, which may halt quick development by sticking to established rules and regulations, routine transactions, relationship-specific investments, and so on. And lastly, learning is a process which, when occurring as a mass phenomenon, is unavoidably slow and thus hinders revolutionary changes in established systems.

The latter source – learning – may be especially salient insofar as audiences/users in the domains of software design and human computer interaction have been shown to be relatively slow learners, leading to a strong conviction that designs for new technology applications should rely, to an extent, on conventions that are familiar in other media so as to give users cues and resources for learning by using (Brown and Duguid, 1996). In the domain of mobile interface design such ideology has often been visible. Before the era of touch screens, the interface designers of then-dominant Nokia had developed an in-house policy that the optimal user interface development strategy is not one of ‘revolutions’ but is ‘evolutionary’ – always relying on forms familiar to the user (Kiljander and Järnström, 2003).

Path dependency has also been linked to producers’ limited readiness to change their practices. Lane and Maxfield (2005) attribute this to ‘ontological uncertainty’. If the entire structure of actors’ worlds changes so rapidly that they cannot generate stable ontological categories that are valid for the period in which action is to be taken, actors cope by holding their uncertainty temporarily at bay, interpreting the contexts in which they must act in terms of stories with structures that are familiar from their past, and following their narrative logic, leading to re-enactments of their role in the story. Practically, this suggests that technology developers and service providers will design new media forms, to some extent, in the light of what they are accustomed to. Or, as an alternative, they could accommodate and re-enact ‘success stories’ from other technology domains but by doing so effecting change in their own domain. In this event, dominant historical narratives within one domain are likely to be replaced by others from a more successful or powerful domain.

The eventual configuration of a system may be the outcome of any or all of the positive feedback processes including industry relationships, technical standards or other regulations, ‘mission statements’, or slowness in learning, which together function to ensure that a given system ultimately moves toward a ‘self-sustaining equilibria’ (David, 2000). Garrouste and Ioannides (2000: 4) describe the ‘self-reinforcement’ of systems. What the hereby article suggests is that every system’s new selections depend on and are limited by the evolution of its own memory. Such memories are produced by systems’ auto-communicative functioning, which in turn could be understood to be based on systems’ evolving ‘textual’ configurations, that is, in reference to all the textual material that might be interpreted in an internally referential way, and which could
therefore also codify and eventually lock in one particular setup of a particular configuration. I propose that in the context of media systems, when we look for elements, which participate in the auto-communicative self-codification of a system, a combination of technological (standards documents), economic (rules for industry interactions), cultural (genres and other cultural conventions, audience expectations), and other factors should be considered. For instance, it is likely that the mobile web could be established and reinforced by pricing models (as forms of value communication) that delimit the domain, web site design conventions that differentiate it from other media, and the technological standards and industry meta-discourses that establish its identity. The normative meta-languages, which lay out the characteristics of the emergent media forms including the possible design guidelines and codes of practice, sooner or later start to work auto-communicatively for the new social institution itself. Any meta-discourse that begins to impose norms on a design from a perspective of one social system is also, for the most part, the same discourse that auto-communicatively articulates the identity of that same social system – for example, hypothetically, in the case discussed in this article, the ‘social system of the mobile web’. It ought to be possible to demonstrate their interdependence empirically.

What then explains the disintegration of autonomous systems? David explains that for a system’s path dependency (autonomy) to be disrupted an external force must intervene to alter the existing locked-in configuration especially if the existing pathway leads ‘to places everyone would wish to have been able to avoid’ (David, 2000: 26). Such external forces may include the accumulation of knowledge and experience that leads to a reassessment of the stability of the existing system, giving rise to new value systems, meta-languages and, potentially, a realization of a need to shake free of the existing path. The interchange of knowledge between existing systems may lead to innovations that, as Dolfsm & Leydesdorff (2009: 939) argue, has the potential for unlocking the established trajectory when the new developments are taken up in the market. Alternatively, the existing systems in dialogue may simply converge. In this article, the empirical evidence demonstrates a case in which the latter seems to have happened, that is, the case of the mobile and desktop web industries. The combination of conceptual lenses introduced in this section is used to analytically ‘unconceal’ (Mansell, 2002: 269) an important episode in the early evolution of what has come to be known as the mobile web. The article suggests that by analyzing how the ‘own domain’ was discursively constructed by the mobile telecommunications industry (T-Mobile) at the time and what historical genealogies were auto-communicatively constructed for this domain, we could understand better the circumstances under which the existing evolutionary path for the mobile web was unlocked and convergence between the mobile and regular webs was facilitated.

**Methodology**

In 2006, a total of 11 T-Mobile employees, based in their UK (Hatfield), German (Bonn) and Austrian (Vienna) headquarters, were interviewed. All had taken leading roles in developing Web ‘n’ Walk, as an innovative T-Mobile service. Additionally, 22 representatives of content providers, handset manufacturers, and service providers in close working relationship with T-Mobile were interviewed, that is, individuals in a good position to interpret ongoing changes. Interviews lasted approximately 60 min, were transcribed, and analyzed using a discourse analysis method combining some aspects of Foucauldian archaeological discourse analysis and the analysis of the dynamics of auto-communicative and dialogic communications informed by Lotman’s semiotics of culture as discussed above. The first aim was to examine the meta-discourses of the interviewees...
on mobile media and the Internet in order to explore the continuities and discontinuities that these discourses were constructing at different levels for the converging domain.

The questions to be explored were therefore related to how this new domain was defined and bounded discursively: What were seen as its crucial characteristics, what were seen as the alternatives to this development, and what industry subsystems or media platforms were considered as part of the convergent domain and what were not? What, at this particular time, were the historic narratives in use that justified the particular constellation of the new subsystem? That is, what diachronic continuities were discursively created for the mobile web? Did the choices of historical narratives offer us insights about the perceived legacies for the convergent domain and did these choices refer to new allegiances, strategies, and evolutionary trajectories for the future?

A genealogy of the mobile web

It was not at all uncommon for the interviewees from T-Mobile to refer spontaneously to various historic narratives when justifying their views or further actions. From these narratives, two emerged that were almost uniformly referred to – first, the story of WAP and the lessons learned from this experience, and, second, the early evolution of the desktop web in consumer markets. The first was mostly discussed by those with a background in the telecom industry, while the second was referred to those with a variety of backgrounds.

The story of WAP was predominantly depicted as a negative experience, a lesson learned and not to be repeated. One interviewee, a leading mobile web design consultant who had worked for an American mobile operator observed:

One of the biggest points of failure, at least over here, in the mobile Internet has been marketing. The marketers ran off and offered the Internet in the palm of your hand and users are not stupid and they looked at what at the time was a little small, black and white, no graphics fixed screen that they didn’t care, accessed Internet content that was irrelevant for them, and they said that’s not the Internet in the palm of my hand. That’s garbage. But at the time there was... so right there... the users’ experience with the Internet obviously had a huge effect. And the effect was it made them know that the marketing was fundamentally a lie and they didn’t even bother trying it.

That story of poor user experience with regard to early WAP that did not meet users’ expectations, and therefore disappointed them for good, appeared to be almost universally shared folklore in the industry and is best associated with the story-specific catchphrase, ‘overpromised and underdelivered’. The unduly high price of the WAP services was another frequently expressed reason for the negative discourse. T-Mobile UK’s Head of Internet Products (marketing) admitted, ‘I think for a lot of customers it would be, Oh, I hit that button once and it cost me a fortune. I don’t want to go there again’. His boss, the group’s vice president, acknowledged that ‘the pricing was out of this world’ and that ‘the mobile premium you cannot charge 100-, 200-, 500- or even 1,000-fold. The mobile premium is probably much lower than that. And it needed to orientate on the benefits and the relevance of customers from the fixed line’.

The distinctive feature of this discourse is the recognition that the industry has had problems with the discrepancy between the object and its meta-language. The meta-language that the industry had created for its audiences, for example, the ‘Internet in your pocket’, did not relate to the audience’s reality. The Internet they knew at that time was already colorful, audiovisual, and fast. Therefore, it was admitted that WAP had been ‘overpromised’. Hence the lesson that seemed to be quite uniformly recognized:
If you are going to say mobile Internet you really need to be able to deliver on that. So I think that’s certainly important that you set . . . you set clear expectations up front and you deliver those expecta-
tions up front. (Head of Content, T-Mobile)

This quote, the fact that content providers avoided talking about WAP, using instead the mobile Internet and the recognition that the price of the wireless web had to relate to the pricing of the ‘wired web’ – all relate to the following questions: To what extent did the characteristics of the ‘desktop web’ motivate expectations for the mobile web, and how did these expectations condition the design of the eventual service? The statements above refer to a relatively straightforward and increasingly motivated interdependence at the time of my interviews. Furthermore, there seemed to exist a notable referential relationship to historical narratives from the desktop web domain. The quote below should exemplify one of the main ones that came to the fore during the interviews.

When I go back to the mid-90s when Internet came into offices and most of us had CompuServe. It was a walled garden as well so nobody had to type in http, www, or URLs – so most of people I knew at that time were in this closed CompuServe system. They had their mail in there, news, and so on and there was a little button that meant ‘go outside to the real Internet’. And after a while people recognized that CompuServe isn’t the hottest brand in town. So they started to go out and find new brands, or establish brands, which make the way to the Internet. And I think that is pretty much the same for mobile Inter-
ett. (Head of Mobile Services, ProSiebenSat.1)

Stories about the struggles or demise of CompuServe, AOL, or Prodigy, with variations in different countries, usually came up when interviewees turned to a burning issue at the time – whether and why operators should open up their walled gardens. ‘AOL’ especially seemed to be a similar catchword with regard to the desktop web as the phrase overpromised and underdelivered with WAP. The parallels with the history of desktop web did not end, however, with discussions about the perdition of walled gardens but seemed to encompass more. They were often used for modeling the whole complexity of the current situation and its future. For instance, it was often pointed out that the time from the birth of both media until the moment they gained momentum in the market was similar. Or, that the fragmentation of the mobile domain standards would inevitably lead to a situation similar to the desktop web where Microsoft’s IE browser’s proprietary solutions had to make way for open standards and standards-loyal browsers. However, again with reference to web history, the possibility of a new ‘browser war’ was also feared. The whole mobile industry dynamic was seen to be mirroring the mid-90s experience of the desktop web – as an interviewee from T-Mobile explained, again there are ‘content people, network people and manufacturers’ coming together, and again the prerequisites for success are better networks ‘so the user has fun’, flat rates ‘so the user says OK, I can do whatever I want’, multimedia handsets ‘which is OK right now’, and content for these handsets ‘which is sort of like in the beginning’.

These observations are unremarkable except insofar as they serve as grounds for new actions and this often seems to have been the case. A BBC executive producer of mobile content claimed that when they created their mobile portal on the open Internet at the time of strict walled-garden policies on the part of operators, they were hoping that ‘just like the Internet went from Compu-
Serve and AOL to an open model that eventually the mobile web would’. The same was hinted at by other content providers. When we compare these two main narratives about the WAP and the early web, both can be seen to have served as grounds for further action. In the new situation of ‘ontological uncertainty’ (Lane and Maxfield, 2005), the approach was to re-enact previous suc-
cesses. It is worth noting which stories come forth as successes and which as failures, that is, which
were presented as positive genealogies for the converging domain and which were switched off. The genealogy of WAP was presented almost univocally as discontinuous. Although there were a few interviewees who admitted that the WAP was a necessary phase that provided a pool of experience for the industry, it was the early desktop web that was seen as the dominant paradigm for most of the industry. Emulation of the web’s evolution was presented as both something that was inevitable and a strategy to be actively pursued. The question is whether these discourses are indicative of a convergence of industries into a new domain of the mobile web in a way that involves the replacement of one dominant history by another? If so, then what did such a change from mobile-only histories to an open affiliation with the regular web imply, first about the power balance in the industry and, second, about the evolutionary pathway that the developing platform was about to take?

T-Mobile’s motivations for opening up to the ‘full web’

To answer these questions, we need to assess the motivations for launching Web’n’Walk as they were articulated by T-Mobile employees. As implied above, most operators had since the late 90s been designing their data services in a way that turned them partly into content providers. They were offering their own portals with content produced either by themselves or by contracted third parties. Thus, what we had back then was not a convergence as an outcome of a dialogue between equal partners, but an attempt by operators to control the whole value chain, thereby avoiding the role divisions that had evolved for governing various earlier media. During most of the preceding decade, these portals had come to be regarded as the natural form of governing the mobile web. In 2001, the Universal Mobile Telecommunications System (UMTS) Forum forecast that mobile portals would be critical to the end-user experience of 3G mobile services and that these portals would be central to the 3G value chain (UMTS Forum, 2001). In 2005, the Organization for Economic Cooperation and Development (OECD) (Kunin et al., 2005: 9) estimated that the majority of revenues from mobile data would continue to go to mobile operators, not to content creators. And, in 2007, Goggin and Spurgeon (2007: 760) anticipated a boom in premium-rate (i.e. operator-controlled) services. It was into this context that T-Mobile launched its Web’n’Walk, a service that would eventually disrupt this historical trajectory. The fact that many of T-Mobile’s competitors soon followed suite denotes a paradigm-change moment for the mobile telecoms and content industries.

Hence, the question remains, what motivated T-Mobile to go that way? This is how the process was perceived from inside:

From my perception it was pretty much management decision. From the rational how I understood it was pretty much that all this walled-garden approach simply just not carry enough traffic. It is simply not erm, not attractive enough to the customer to actually use it. But the real Internet is. And this . . . so my personal perception is that this really triggered the idea of Web’n’Walk to see OK, how can we make our data service offerings much more user friendly. This is the one thing. The other thing also is getting some competitive advantage in terms of USP. (Senior Terminals Engineer, T-Mobile)

What this suggests are the difficulties that T-Mobile and other Western operators had in achieving markets of scale for their data services. Funk (2003) and Goggin (2006) have demonstrated that in the 1980s all the mobile operators started with premium services directed at business users. In Asia in the late 1990s, however, Japanese and South Korean firms began shifting their emphasis by targeting new data services at consumers, and especially at young people, while in Europe and the
United States, the operators retained their focus on business users and premium services, a relatively small niche market by comparison (see Funk, 2001, 2003). Although there were exceptions to this in smaller countries such as Norway (Nielsen and Aanestad, 2006), in major Western countries the unilateral control by mobile operators over such content domains was often perceived as restrictive by content providers. For instance, Pashtan (2005) argued that the drawback of premium services and the walled-garden model was that there were too few incentives for content providers to develop innovative services. Mobile subscribers complained about a lack of variety in the services provided, which resulted in relatively limited service use and limited growth in mobile Internet usage.

But growth was essential to earn a reasonable return on the operators’ hefty investments made in 3G networks. This prompted the mobile industry to look for new solutions for the mobile web from neighboring industries. As one of the decision makers at T-Mobile puts it, ‘Look, I’m coming from the media industry, I’m working on mobile topics now for about 7 years and I always believed that the Internet has a huge impact also on the mobile. And Web’n’Walk was just a logical consequence at the end of the day’ (Vice President, Mobile Data). This personal perception of the situation by somebody who, in effect, came from outside the telecom industry refers to the causes given for the change in narratives and examples used to justify the new direction. That is, again the examples to be re-enacted in the mobile web came from the desktop Internet and not from telecom history. Take the following quote as an example:

Some companies will have the resource capability to be able to offer lots and lots of content, package it up in a walled-garden approach and give it to the customer. You need lots of money, you need lots and lots of resources, you need lots and lots of big teams to manage this content, to keep it fresh and keep it going. We’ve felt . . . yes, we need a complementary service that we already provide, which is t-zones. But we can’t possibly aggregate all the traffic on the Internet, all the content on the Internet and package it ourselves. We need to be able to let our users to go out there and use the services that they normally use . . . if you want to create the adoption of these services then ultimately you have to give them open access. (Design Architect, T-Mobile)

This statement refers candidly to the dilemmas the operators were facing. Could they create media domains that would be dynamic enough to withstand comparison with media ‘outside’ their domain? Could a centrally governed mobile environment compete with ‘peripheral’ environments in Lotman’s (1990) terms, that is, environments that would be less controlled and hence more flexible and dynamic? More importantly, if the new medium (WAP) was to be ‘materially’ built upon the same technology and structural principles that were used in the more dynamic environment (the web) and if it was intertextually connected to these other environments, how could it then effectively avoid such comparisons? T-Mobile recognized that it lacked the power to stand such comparison in the long term.

Users and the ‘real Internet’ offer

One justification that pervaded most of the interviews for the new approach of opening up mobile services to a desktop web model was that ‘users want it’. The outsider’s view from Deutsche Welle commenting on T-Mobile’s new open strategy:

And I think it was very brave to do that when they did it because they did it quite early when others like Vodafone were still having, or are still using their walled-garden approaches. But they said from an
early stage on ‘no, we go for the mobile open Internet’. And I think personally that this is the way it will develop eventually. And all others will follow suit.

Interviewer: Why?

Because I think that people are just so used now to the Internet and the way the Internet works, where things are basically free in terms of you can go wherever you want to. And I think the mobile Internet is just going to be moving into the same direction because people are not going to adapt or adopt a different approach to it just because it’s on a smaller screen device. So I think in the longer term, it will go that way too.

Perceived legacies of user behavior and interests are evident here. The users’ ‘horizon of expectations’ (Jauss, 1982) and their perceived need for ‘freedom’ was seen to be due to their familiarity with the conventions of the desktop Internet. Nevertheless, these legacies were only part of the story – as, yet again, the self-critically negative narrative of past experiences with WAP casts a shadow over the mobile industry’s perception of customer expectations and interests.

The point about Web’n’Walk is it delivers the open Internet on your phone. It’s an Internet, you know, it’s an Internet-centric message. If it doesn’t deliver on that then you’re either going to have customers that do not have their expectations fulfilled, they are just going to say well this is the same thing again. This is yet another unfulfilled promise from a mobile phone company, around WAP. (Head of Content, T-Mobile UK)

The discourse is indicative of a clear aim, a strategy to offer something that would keep its ‘promise’ – that is, presented as similarly as possible to the ‘Internet’ experience on other platforms. One way to communicate this to users was the design of the opening page of the Web’n’Walk service and the appearance of brands, most notably Google, which would work as meta-symbols for the open and unrestricted Internet.

I think the benefit we got was it’s Google, it’s about signaling that this is real open Internet. And we did, I remember doing a demonstration on the launch, you know you do Google on a PC, you do Google on a phone, you get the same results. You click on it you go into the same place. This isn’t some kind of WAP proxy cut-down version, re-purposed on the fly. . . . And I think Google has featured in all our advertising. Whenever we show the device with somebody looking at it, it’s got Google on there. As a way I think of labeling it as open Internet. And it’s also the openness in the sense that you can type whatever you want into Google and you can go to wherever the results come. This is not some kind of you know search for t-zones, portal type thing where you are gonna get shown what we want to show you. This is about real openness. (Head of Internet & E-mail Products, T-Mobile UK)

The other area where we spent a lot of time was trying to get links on that home page which would be attractive to customers, where they would look at it and go: Oh I’ve heard of Amazon that sounds like the Internet to me. Rather than what we have in t-zones which is a whole lot of, you know there is a lot of good information in there but its hidden in dropdown menus, you know, and it isn’t very internetty, it’s very portal and WAP, operator portal and WAP-type of environment. It was coming up with things that would flag to the customer: You know we’ve got eBay, we’ve got Amazon; this is real Internet. (Head of Internet & E-mail Products, T-Mobile UK)

There were other efforts related to this aim. In this case as suggested by the second quote above, there was a desire not to overdo the opening page with brands and links but, instead, to clear up the page. This was to differentiate the new Web’n’Walk services from the earlier crowded WAP design and to learn from Google’s design convention – the empty page connotes user freedom.
In addition, a year after the launch of the new service, a URL input window was included on the home page – further emphasizing the users’ option to find their own way without needing to engage with a search engine. The design of the page that opened when one connected to the Internet via a phone was the main arena in which the meta-language for the service was being established by T-Mobile. That first page was not the service itself but a medium to communicate the nature of the service via the multimodal means of layout design. The communication on that page was dovetailed with meta-language development in other arenas – such as using Google and its search function in advertising the Web’n’Talk platform on television, in the press and on billboards.

At the same time, however, the company had also its difficulties with the meta-language development due to its limited knowledge about its dialogue partner, that is, its users, for and with whom to create this meta-language.

It’s one of those things that until people really see it they probably don’t get it. And if you say to them would you like the Internet on the move, they say, mmm, yes probably. But what would you use it for? And they tend to scratch their heads. And where they come back down to is things like you know, is e-mail. So the things that there currently is on the Internet are the things that they would want to use it for. (Head of Content, T-Mobile UK)

What this quote reveals is how T-Mobile as service operator and innovator did perhaps observe its customers as significant ‘Others’ but did not take them in as dialogue partners in their norm development for the design of the new service in that early phase. What becomes apparent from all this is the dynamic that occurs when the industry is attempting to establish a media platform based on beliefs and narratives derived from earlier media and experiences. We see that sticking to old media norms and forms is often established as a principle because the users of the new media applications, the ‘model readers’ (Eco, 1979), are seen as having the same ‘horizon of expectations’ that then has to be met. Hence, during the initial stage, therefore, the new service had to be designed and structured as similarly as possible to the Internet as known from earlier platforms.

**Conclusion**

This article set out to examine the evolution of the open mobile web during its early phase of development. The ‘site’ for the investigation was T-Mobile International, a company that was launching Europe’s first open mobile web service. The analysis has focused on the motivations and discursive dynamics associated with the design of the service and the subsequent restructuring and convergence of the web and telecoms industries. The analysis provoked a question as to whether what we had at that time in the mobile content domain was a replacement of its auto-communicatively constituted genealogies – if in its self-establishment process the closed mobile-specific legacy was swapped for the continuity with the much broader domains of the Internet industries.

Building on this, the article posed a question about the power balances, which might have caused this change in the course of the mobile industry’s self-reflection. We saw how, at the time, the mobile web was dominated by the operators’ closed portals that were presented to users as a limited set of premium data services. These portals functioned as walled gardens. This means that the operators were the normative core of the mobile content domain in the WAP era. They dictated who could publish in their portals and on what terms, their rather expensive price plans for mobile surfing limited the opportunities for mobile web sites outside of their portals (in the open Internet).
That is, the high cost of web surfing effected cautious usage on behalf of users and that began to hinder the development of mobile-specific content by independent content and service providers. The result was widely perceived as unremittingly poor content service offerings on mobiles in Western markets, especially when compared with the flourishing regular web to which the mobile web was intertextually connected. That continued to undermine the uptake of mobile data services. Therefore, T-Mobile came to the, at the time, disruptive realization that walled gardens could not compete with the dynamism of the open web. The solution was found in the re-actualization of the desire to dislocate established media into portable devices (Huhtamo, 2004). It was realized that after the launch of 3G networks and the arrival of advanced handsets, the web, the already successful medium with its established usage patterns, audiences, and production industries, was simply dislocated from the desktop onto the new mobile platform. Therefore, T-Mobile ditched the WAP platform, its walled-garden approach and the small market it controlled, and decided to join and open access to the mass market that worked.

The article suggests that the decision to hook up the domains and to merge them into one can be understood as the outcome of dialogic control (Ibrus, 2014b), where one party (mobile communications) wanted to partake of the World Wide Web as an established market and the other party (online content and services industries) wanted to extend themselves to mobiles as a yet-unconquered domain. It is in this context that the apparent swap in the auto-communicatively constructed histories of the mobile industry is telling. It tells of dialogues that have conditioned convergence and shows how the focus with regard to the mobile industry’s identity was changing – the space from which to choose positive narratives that could be re-enacted was wider. We saw also, as was suggested in the conceptual section of this article, that this auto-communicative shift took place on a variety of levels and in different modalities – marketing texts, advertising campaigns, interface design, service design, technological standards, and so on. The narrative/discursive swap was also identified in interviews with respondents at different hierarchical positions and from different sub-divisions of T-Mobile. This points that also the dialogues (the discursive exchange), between the mobile and online domains was taking place on variety of levels within the company. The fact that the narrative material for re-articulating and auto-communicatively re-building its own domain was borrowed tells of the existing power relations in this ongoing convergence process and of the greater authority of that other domain into which the mobile industry was being merged. It is significant that it was only couple of years before the developments discussed in this article that Jeffrey L. Funk (2003) argued that the mobile Internet had effected the emergence of an autonomous ‘new network industry’. This article has contributed insight into why the history was different still and into some of the discursive dynamics that facilitated the absorption of then-nascent mobile content domain by a cluster of industries of what has come now to be the ‘ubiquitous web’.

I have demonstrated elsewhere (Ibrus, 2013a, 2013b) how struggles regarding the autonomy of the mobile web and its convergence with the general web have continued apace. The infrastructure companies (telecoms, browser developers, global cross-platform online services providers, etc.) have generally worked toward the maximum convergence of all versions of web access platforms. Content and service providers, at the same time, sought to keep different access platforms measuredly separate, especially in terms of forms of content and also what content is offered on various platforms such as desktop, mobiles, tablets, and so on so that content is always adapted to the ‘delivery context’. Such ‘measured divergence’ has enabled the content producers to develop smart cross-platform strategies whereas the different platforms are made to contribute based on their specific affordances and platform-specific business models. This has resulted also in new web
standards, negotiated at W3C, that enabled content ‘adaptation’ for a variety of access devices. The subsequent emergence of the app form of mobile content was similarly motivated, and it was well received by the content providers because it enabled them to overcome the many uncertainties of the mobile web described above and to regain full control over what content was presented and how it was displayed on mobile devices. On the other hand, not only were the ‘app stores’ strictly controlled by various platform owners, there was also an increasing number of such ‘stores’ that traded with mobile applications. This meant again fragmentation regarding the specifics of publishing on these platforms – a mounting challenge for content providers. Over time this conditioned the popularity of W3C’s work on HTML5 and its ‘device API’. ⁶ To overcome the ‘app store fragmentation’, increasingly more companies have started to turn to web apps (Visionmobile, 2013) because these offer architectural advantage and substantial savings when targeting a cross-device launch. Paradoxically, however, it was this time the content and service providers were looking for more of homogeneity and compatibility between web access platforms, and it was the large technology vendors and online service providers that have been behind some actions contributing toward fragmenting the web space. All in all, the brief history of fixed and mobile convergence is indicative of how media convergence tends to be nonlinear. Despite the intensifying dialogues between various industry sub-systems and increasing discursive cohesion within the cross-platform web space, yet the auto-communicative self-assurance of these different industry subsystems has at different stages both enabled and deterred such processes of convergence.

This article showed how the tension between convergence and divergence originally emerged, what motivated T-Mobile as in this regard the first of the mobile carriers to opt ultimately for convergence, and how its motivations were framed by the industry discourses of that early era, referring to the then emerging discursively constructed path dependency between the desktop and mobile domains.

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Notes

1. Green paper on a common approach in the field of mobile and personal communications in the European Union, COM (94)145. This document was significant in terms of the EU countries and more specifically the European Telecommunications Standards Institute (ETSI) having had a central role in developing 2G standards and therefore also having a good position for laying out further evolutionary trajectories for this communications platform.

2. Green paper on the convergence of the telecommunications, media, and information technology sectors and the implications for regulation toward an information society approach, COM (97) 623. This document indicates that by the second half of 1990s the aim to achieve full convergence between the desktop and mobile webs was at least in Europe already widely shared and codified.

3. Here ‘walled garden’ refers to closed media platforms or content ‘ecosystems’ where the mobile operator has full control over applications and content and restricts convenient access to nonapproved applications, content, or access to the web.

4. The set limit for the cheapest price plan was 1 GB per month. But if a user continued to exceed that limit for more than 1 month she/he was not charged for the additional usage, only receiving suggestions from the operator to upgrade to a higher price plan.
5. The web that is standardized for being accessed by all kinds of Internet-enabled devices. For related standardization work see http://www.w3.org/UbiWeb.

6. Application programming interface (API) allows developers to create web applications that interact with device hardware.

References


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