

Harnessing mobile devices to connect learning in formal and informal settings: the role of digital narratives and discontinuous text production for meaning-making

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Towards sustainability and scalability of mobile learning

- need for understanding the fundamentals:
 - structures (**convergence**, milieus, fragmentation, provisionality, **discontinuity**)
 - agency (appropriation, **meaning-making**, habitus of learning, naïve native expertise)
 - practices (normalization, **self-expression, communication**, user-generated content and contexts)
- maximise the affordances of technology without fetishisation ('toys for boys')

- **maximise the use of personally owned devices** through integration and interoperability whilst respecting the privacy of users
- assimilation and accommodation of media use in everyday life in formal educational contexts
- systematic gathering of practice to enable synergies and enhance replicability of mobile learning projects

Mobile devices

- mobile devices have become **normalized in everyday life**
- they can be considered as **important cultural resources**
- they are attractive from an educational perspective due to their **affordances in terms of meaning-making of the world and communicating with and in it**
- they are characterised by
 - personal ownership,
 - portability,
 - functional convergence and
 - connectivity,which afford a potential for
 - social interactivity,
 - ubiquitous information retrieval, processing and exchange as well as
 - context sensitivity and location awareness

Mobile learning

- the processes of coming to know, and of being able to operate successfully in, and across, new and ever changing contexts and learning spaces with and through the use of mobile devices
- understanding, and knowing how to utilize our everyday life-worlds, which are increasingly mediated by mobile devices, as learning space

Narratives as participatory meaning-making

- can be seen to function as an aid for making sense of everyday experiences and learn how to 'be' in particular contexts (Polkinghorne, 1988)
- a tool to conceptualise through communication, dialogue and social practice as well as a 'vehicle to fashion identities' (Bamberg, 2004)
- a dynamic, experiential phenomenon, a lived process of meaning-making by which that which is known is reconfigured as is how it fits into existing conceptual frames
- as inextricably linked to the appropriation of mobile devices and how they are harnessed for meaning-making through new cultural practices (Pachler, Cook and Bachmair, 2010)

- a tool to conceptualise through communication, dialogue and social practice
- the intention behind the production of narrative material, the thematic interests as well as the intended addressees differ widely
- **the organisation and representation of information in narrative form is a communicative act; it is about production and performance and the expression of self; and it is about meaning-making through engagement in social and cultural practices**
- storytelling is used to express memories, fantasies, facts, desires, success-stories, whatever can be imagined

- three levels from where value orientations can enter life-stories :
 - a general level of culturally shared value assumptions that are deeply engrained in the cultural symbolic system that is employed when engaging in biographic work;
 - my visions, hopes and aspirations about what I expect my future to be like (which also are culturally constrained, but nevertheless very personal and individual); and
 - the kinds of situative, and local interactive forces within which the biographer finds him-/herself – in which we have to tailor our biographies toward our audiences

(Bamberg, 2006)

The potential of non-linear and discontinuous multimodal and multimedia narratives for learning

- the stylistic device of 'stream of consciousness', often unreflected, spontaneous and situative impressions, feelings, thoughts etc, as evidenced, e.g. in blog and Twitter posts, can be seen as an externalisation of meaning-making in a society characterised by individualisation, consumption as well as information and knowledge production (see e.g. Pachler, Bachmair and Cook, 2010)
- (such) information and knowledge cannot just be 'consumed' but have to be filtered and transformed in (individually) meaningful ways

- from an educational perspective, the risk for learners is to fail in these construction processes, as individuals or as part of society
- it is an important role for school to scaffold the learners' individualised view of the world, their 'stream of consciousness' within existing structures, and to provide tools and 'navigational aids' (Kress, 2008)
- formal education has a role to play in mediating, 'translating' and 'objectivising' where tensions and uncertainties emerge and to support learners in their meaning-making and learning processes

Discontinuity as a cultural and textual phenomenon and its implication for education

- the notion of discontinuity has a key function in the reading and production of contemporary texts; text not only as written or spoken text, but includes also media, modes, genres
- it is a cultural phenomenon that is particularly prevalent in the media and it has considerable implications for cultural practices such as literacy and learning, particularly in the context of mobile device use
- it can be viewed as a certain break in consistency not only in sequencing and time line but also in aspects such as (distributed) authors, plot, and mainly in location of resources etc

- we can distinguish narratives at a structural level in terms of linearity (continuous texts such as novels) and non-linearity (discontinuous texts such as websites, multimedia arrangements and multimodal representations)
- given the characteristics of mobile devices, e.g. display size, their constraints on inputting text, as well as the possibility to distribute different text modes on different platforms such as Twitter, Facebook, AudioBoo, etc., we see discontinuity as a particular issue in mobile learning

- ‘storytelling’ (‘narration’) can be seen as the structured and mediated presentation of experience(s) with a recognisable beginning and end” (Klastrup, 2007)
- ‘mobile storytelling’ as the structured and shared presentation of visual material produced with a mobile device, supplemented by text and/or music or sound (Klastrup, 2007)
- meaning is dependent on the presentation of the story and the structure, i.e. the choice of sequence (Klastrup, 2007)
- **discontinuous text structures find their reflection in discontinuous text reading**

- there exists a myriad of possibilities to connect and sequence (blocks of) text(s) into meaningful wholes and even closed texts lend themselves to becoming building blocks for new narratives
- narratives, thus, can be seen as 'form', as expression for the purpose of meaning-making by using continuous and discontinuous text, with multiple media, as well as with multiple modes

- in the meaning-making process, (dis)continuous texts are assembled, in different media, with different modes, to a more or less linear learning trail (see e.g. Walker, 2006) that allows objectifying knowledge in a meaningful way for others
- in view of the increasing prevalence of these forms of discontinuous text in the life-worlds of learners through their media use, we believe that schools have to take such new forms of literacy seriously

- learners are required to structure the information, which is around them and to organise their social lives; or, put differently, to transform discontinuity into (subjective or objective meaningful) continuity
- participation in current cultural practices in everyday life, therefore, requires an ability to engage meaningfully with discontinuous texts through 'multi-tasking' across different media (e.g. online chatting whilst listening to music and doing one's homework) or within one medium (e.g. TV 'zapping')

Multimedia and multimodal media – convergence and mobile media

- mobile phones as convergent multimedia and multimodal tools for learners in the process of meaning-making and the organisation of discontinuous texts
- How can schools provide opportunities for pupils to organise their narratives, in the composition of which they are experts, and make them relevant for their formal learning?

- ways in which schools can assimilate learning taking place in informal contexts into formal educational settings (Pachler et al, 2010):
 - through the recognition of the 'naïve native expertise' of learners in relation to mobile device use and
 - through user-generated mobile contexts
- assimilation can be fostered
 - through building on conversational threads from learners' life-worlds as well as
 - through the docking of formal educational learning situations onto contexts of personal development and learning around the use of mobile devices in learners' everyday lives

- mobile devices can bring together what belongs together in a rich learning environment:
 - ***acting*** in the physical world (classrooms, outdoors),
 - ***accessing*** symbolic resources (text, sound, video on the Internet), and
 - ***interacting*** with others
- this overall convergence is taking place along three dimensions: technology, collaboration, and curriculum

(Mann et al., 2007)

| | | convergence | |
|---------------|--|---|--|
| technology | mobile → | mobile wireless broadband | ← internet broadband |
| collaboration | face-to-face collaborative learning → | face-to-face collaborative learning (using mobile devices) | ← distance collaborative learning |
| curriculum | curriculum- oriented formal learning → | curriculum- oriented informal learning (supplemented by mobile devices) | ← non-curriculum- oriented informal learning |

(Mann et al., 2007)

Digital storytelling resources

The screenshot shows a web interface for a digital storytelling resource list. At the top, there is a search bar with the text 'servusuk digitalstorytelling x Type another tag' and a 'Bookmarks 25' indicator. Below the search bar, the list is sorted 'Alphabetically'. The resources are listed in a table-like format with columns for date, title, edit/delete options, tags, and a bookmark count.

| Date | Title | Actions | Tags | Count |
|-----------|--|---------------|---------------------------------|-------|
| 24 OCT 09 | ArtisanCam - Activities - Picture Book Maker | EDIT DELETE | books tools digitalstorytelling | 58 |
| 18 JUN 09 | BBC - Telling Lives - Digital Storytelling - Digital Stories - Lancashire - Humber - Teenagers - World War II memories | EDIT DELETE | digitalstorytelling | 98 |
| | Center for Digital Storytelling | EDIT DELETE | digitalstorytelling | 2350 |
| 24 AUG 09 | CogDogRoo - 50 Ways | EDIT DELETE | digitalstorytelling | 1097 |
| 25 OCT 09 | Create Your Own Comic Marvel Super Hero Squad The Official Web Site | EDIT DELETE | digitalstorytelling | 10 |
| 18 JUN 09 | DigiTales - The Art of Telling Digital Stories | EDIT DELETE | digitalstorytelling | 209 |
| 24 JUN 09 | Educational Uses of Digital Storytelling | EDIT DELETE | digitalstorytelling | 1354 |
| 18 JUN 09 | Flickr - Photo Sharing | EDIT DELETE | digitalstorytelling | 72491 |
| | Fliggo - Create Your Own Video Site | EDIT DELETE | digitalstorytelling | 1705 |
| 31 JUL 09 | Fotopedia | EDIT DELETE | digitalstorytelling | 1573 |
| 09 OCT 09 | Free Technology for Teachers: Digital Storytelling In Plain English | EDIT DELETE | digitalstorytelling | 19 |
| 24 AUG 09 | From Toy to Tool: Cell Phones in Learning: Creating Digital Storybooks with Student Cell Phones and Yoddio | EDIT DELETE | digitalstorytelling | 10 |
| 17 OCT 09 | Howtoons | EDIT DELETE | digitalstorytelling | 845 |
| 18 JUN 09 | In pictures guardian.co.uk | EDIT DELETE | digitalstorytelling | 35 |

| | | |
|-----------|--|---------------------|
| | Kerpoof Studio | 2783 |
| | EDIT DELETE | digitalstorytelling |
| 24 OCT 09 | OllieBray.com: The Tempest from Classical Comics | |
| | EDIT DELETE | digitalstorytelling |
| 24 AUG 09 | PhotoPeach Teaching Sagittarian | |
| | EDIT DELETE | digitalstorytelling |
| 09 OCT 09 | Pixton™ - Comic Strip Creator - Make Your Own Web Comics Online | 204 |
| | EDIT DELETE | digitalstorytelling |
| 25 OCT 09 | ReadWriteThink: Student Materials: Comic Creator | 1664 |
| | EDIT DELETE | digitalstorytelling |
| 16 OCT 09 | Storybird - Collaborative storytelling | 1231 |
| | EDIT DELETE | digitalstorytelling |
| 18 JUN 09 | Storytelling in new media | 72 |
| | EDIT DELETE | digitalstorytelling |
| 25 OCT 09 | Tap Into The World Of Comics | 106 |
| | EDIT DELETE | digitalstorytelling |
| 24 AUG 09 | VoiceThread as a Digital Portfolio Teaching Sagittarian | 124 |
| | EDIT DELETE | digitalstorytelling |
| 28 OCT 09 | We Tell Stories | 1893 |
| | EDIT DELETE | digitalstorytelling |
| 24 AUG 09 | Web 2.0 Storytelling: Emergence of a New Genre (EDUCAUSE Review) EDUCAUSE | 88 |
| | EDIT DELETE | digitalstorytelling |