



“Smart Creativity, Smart Democracy”

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Background paper

Overcoming Barriers to Creativity through Digitisation

Divina Frau-Meigs

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The transition from soft to smart characterizes creativity in the digital era. "Soft power", as coined by Joseph Nye (1990), was all about American influence via global popular culture and fan audiences (rather than hard power and weapons). Smart power, still influenced by American-based digital platforms, builds on the new insights into the theory of the mind offered by cognition and the neurosciences. Adaptive and changing in nature, it relies on the strength of networks and the shift from audience to interconnected communities and their global fellowship.

I. An Evolving definition of creativity in digital age: toward inter-creativity

Smart creativity, using neuro-techniques, is participatory by nature and plays on engagement with others, with distributed intelligence as a way of co-opting others rather than coercing them. In this digital context, creativity is no longer within the confines of individuals treated as deviants and artists; it is a complex process that is collaborative and more and more constructed as the new norm in the so-called "creative" industries. Difficult to define, it is best approached as distributed competences that lead to problem solving via "the exploration of possibles" (Lubart, 2003). Beyond the realm of art, it consists in inventing solutions to a problem whose result is unknown with a methodology developed by a series of try-outs, not following a standard cannon. Digitisation is supposed to enhance this iterative process because every piece of pixelated information is discrete, divisible, (re)mixable and portable, opening infinite variations and options (Frau-Meigs, 2015).

Experiencing is key in engagement, with a balance between use and life aesthetics specific to creativity. And experiencing is knowledge acquisition by other means which explains why creative industries are so reliant on knowledge economies, where the brain and its productions are the major source of activity and revenue. It can also lead, arguably, to more democracy via collaboration and the way it constructs trust, values and attitudes, in order to elicit social cohesion rather than social erosion. This reconciles self-interest and open-ness, as inter-related and mutually reinforcing. Tim Berners-Lee (1999) summed it up by proposing the notion of "intercreativity" as "the process of making things or solving problems together". The creator of the building blocks of the World Wide Web was also willing to place citizenship first, when he refused to commercialise his invention, foreseeing that the "inexorable march of information" would lead to more openness as a pillar of democracy and social innovation.

II. From barriers to levers

Fostering intercreativity implies modifying our pre-digital mind-frame and thinking differently about some notions in order to transform them from barriers into levers for change. Among the most important ones:

- audience as communities: the public needs to be engaged as co-learners and co-creators, not just as pre-digital eyeballs. The power of creating a community is part of intercreativity and it can be empowering for the self and for the cluster around oneself.

- identity as presence: the public needs to be moved from commercial practices that builds their identity as a brand via voluntary and involuntary traces and big data to online cognitive and social presence with mastery over self and small data.
- authorship as engagement in interactivity with multimedia productions and databases, with the possibility of devising one's own solutions and narratives.
- intellectual property as creative commons so as to deal with collaborative processes and remix practices, facilitating authoring in all sorts of open, closed and hybrid delivery platforms.
- spaces as porous makerspaces (or fablabs as open fabrication workshops), where learning by doing is promoted, with transformative tools (3D printers and scanners, lasers, tablets, ...), to join locations - usually dis-jointed - such as school and workplace.

This implies critiques of commercial practices and co-construction of viable alternatives. Examples already exist: Second Story, MuseoMix, Ars Electronica. Places like Banff Centre in Canada or Cité des Sciences in France offer many opportunities to interact. Learning and creative events like hackathons foster citizen sciences. Also known as crowd-sciences or networked sciences, they can enable young people to get involved in the collection and interpretation of data. They point to the need to remix our institutions and our models as well as our outputs and point to the fruitfulness of looking at things differently, playing with the "exploration of possibles" in a sustainable manner.

III. Providing opportunities for experiencing and engaging

If intercreativity cannot be defined beyond a process, all sorts of actors can be called upon to foster the conditions for its existence, in particular via networked communities of practice and of learning. Public authorities see creativity as the means to develop and repurpose whole regions, based on the model of Silicon Valley (like Silicon Sentier in Paris). They need to recognize that creativity can only be fostered by bringing together all sorts of heterogeneous talents, with their attendant diverse communities: social innovators, entrepreneurs, designers, artists, networked citizens, etc. Offering many decentralized services, local authorities and public agencies can be empowered by digitisation, especially in sectors that the state doesn't recognize as priorities. Many initiatives show social innovation revolving around interactions between online opportunities and offline needs, supported by crowdfunding or crowdsourcing, aiming at sustainability with emphasis on local life and culture, as exemplified by Creative Wallonia in Belgium.

Understanding the composite process of intercreativity implies facilitating the conditions for it to emerge, with a focus on the user and citizen. The levers for change have to be brought together around opportunities for training and engaging for a cross-pollination of ideas.

1. Networked communities of learning: turning audiences into clusters of co-learners is necessary but not obvious in the pre-digital school or university formats. Only after the feeling of community is fostered is it possible to move to co-construction and intercreativity. This is exemplified by the current move to Massive Open Online Courses (MOOCs), especially the

Social sMOOCs that rely on networked participants to spread knowledge. These new forms of e-learning foster interdisciplinarity as a multiplier of creative achievements and bring to universities and corporations training opportunities in subjects and matters that they did not provide before, especially in terms of digital skills, as exemplified by the European project ECO (www.ecolearning.eu). They point to creative industries programmes though very few institutions deliver full degrees as yet. They also point to the need for creative humanities that incorporate co-design and information cultures in their curricula.

2. Transliteracy and Internet studies as an emerging frontier field: traditionally, information has been associated with computing (data processing and man-machine interaction) but the arrival of social networks, big data and the 'Internet of Things' entices designers such as John Maeda (2004) to qualify it as "a new material for expression" i.e. a media ecosystem rather than a tool. This places transliteracy as the new 21st century basic skill that build on the convergence of computation (computer literacy), communication (media literacy) and info-documentation (information literacy). It requires distributed competences that can empower learners and develop their intrinsic motivation to innovate and to move from branded identity to cognitive and social presence.
3. The core creative industries: they are generally defined as film, publishing, TV and radio, music, advertising, architecture, arts, design, fashion, software and video games. They do not duplicate cultural industries because they are participatory by nature and call on crowdsourcing and crowdfunding (rather than on public aids or private sponsorship). They propose a whole array of careers without a proper university degree to certify them. They profile new jobs, such as gameplayers, youtubers, modders, web designers, fablab managers, etc. They can turn some social entrepreneurs into corporate entrepreneurs. Such budding industries promote creative people but also place them in a precarious situation as there are no employment safeguards and very few degree-granting programmes. These need to be developed in universities, especially via online education, by fostering creative industries for training and learning (the so-called EdTech).
4. The management of data: the ease of distribution of pixelated information generates many traces and data. The principle of traceability, accepted by most users, comes with many issues, to identity, patrimony, security, privacy but also intercreativity. Un-negotiated, involuntary traces may be damageable for creativity and as such big data can be double-edged as currently nothing prevents corporations from using them commercially in combination with external data on income, location, etc. The management of one's metadata and self data needs to be part of a collective reflexion on intellectual property, information commons and transliteracy, to foster trust and stimulate interactive exchanges. The conditions of their availability, the publics authorised to use and consult them and their relation to other available data need to be specified to preserve the public value of intercreativity. Such data management could be at the root of new regimes for intercreativity and entrepreneurship, with a fairer remuneration of labour and creation.

The new opportunities brought about by technological change need to be recognized and harnessed in a creative manner by states and all stakeholders. The process of intercreativity defined as collaborative problem-solving or "co-design", points to new directions for the public and private value of creativity, not to be separated from human rights and shared values as they ensure the sustainable and creative use of pixelated information.