Delivering Digital Drugs

5 Episodes of Digitization

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Digital Drugs: noun, pl., drugs that are dependent on and substantially constituted by multiple digital representations and connections, and whose use and effectiveness is strongly mediated through digital means. [1]

Medicines and Drugs are hybrids, part active molecule, part delivery system, part packaging and instructions, and embodying a set of protocols of use and work practices. They are also becoming in part digital – they are digitalizing [2]. Their agency as artefacts (their material agency, in particular their therapeutic potential) draws on digitised data and is applied through digitalised protocols.

From the supply chain, through clinical work and patients’ bodies, to post-use data repositories and in structures of regulation, to follow a drug is to tell a story of material artefacts (devices, objects, cells and organs), and of chemical actions in biological milieu. But it is also a story of digital materiality and digital agency.

As a hybrid digital artefact a drug is constituted within, and an expression of, multiple digital representations and interconnections. From in silico science during drug discovery, and in testing procedures of randomised control trials, a drug is embodies digital data.

And the digital sedimentations continue once a drug becomes a licensed product and moves to manufacture and use.

The people and groups who work with and use drugs (e.g. each and every one of us) are drawn in to the digital sphere and medicinal practice (medicine).

In this way digitalization implies new and novel architectures of value creation, realization and capture – new business models.

These are expressed in reconfigurations of the socio-technical and economic context of medicines within healthcare: as value propositions, as products and services, as therapeutic agents, as the locus of innovation, and as new forms of regulation.

References


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