Known Universe

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When I was a kid, I read an old American comic about a man who could channel the minds of the entire human race. Wired to a 'brainwave receiver', all human knowledge streamed into his brain. The result, predictably, was overload. Instead of being catalysed by the collective genius of all the Nobel laureates of the age, his mind collapsed under the weight of the hollow desires, petty worries and neuroses which occupy human minds.

This story could, of course, have been describing the Internet today. Our number one archive of knowledge, is, according to the doomsayers, under the threat of collapse from spammers, YouTubers, pornographers and even the bbc iPlayer. But whilst we wait for the meltdown, the Internet continues to expand at an extraordinary rate.

The Internet is the pervasive theme running through a fascinating new book, Designing Universal Knowledge, by Gerlinde Schuller from Information Design Studio in Amsterdam. Written by a designer-writer who specialises in the development and design of complex information systems, this book is much more than a promotional portfolio or a 'how to' guide: it explores the ways in which knowledge has been mapped in the world throughout history.

Diderot's pioneering Encyclopédie from the eighteenth century appears as an illustration of some brutal looking weapons. Isotype (International System of Typographic Picture Education) features more than once, in the form of Neurath's original visual sociology from the 1920s and in a recent polemical reworking by artists Alice Creischer and Andreas Siekmann. Their 'Monopolistic Productions' charts the cartels which control the world's resources. Perhaps the most seductive illustrations are not those produced by artists or designers but by scientists: the various schemes for visualising genetic codes look, for instance, like pulsing abstract paintings from the 1920s. Coming right up to date, Schuller also inserts engaging essays and pacey interviews with bright stars in the new media firmament including John Maeda and Alex Wright (author of Glut), as well as old masters like Wim Crouwel and Nigel Holmes. Each, in their own way, is trying to come to terms with what it means to have vast swathes of information just the click of a button away.

Appropriately enough, Designing Universal Knowledge takes the form of an encyclopedia, a historical object which offers comprehension and objectivity. Of course, encyclopedias never meet this promise. They invariably represent the interests and, sometimes the quirks, of the cultures that produce them. The editors of the Great Soviet Encyclopedia, for instance, were always struggling to keep their entries up to date as former heroes were turned into enemies of the people. When the former kgb head Lavrenty Beria was executed, for example, subscribers were sent a new page with new extra-long entries on the 'Bering Sea' to paste into their copy.

So what interests are at work in Schuller's book? Not surprisingly, her chief preoccupations are found in these questions: can the increasing messiness and complexity of the world be organised systematically? And who owns this knowledge anyway? These are good questions, not least for graphic designers today.

Simplicity features strongly as an antidote to over-complexity. Designer Markus Frenzl outlines the task: 'the goal is to reduce the amount of information to a comprehensible level, to master the senseless proliferations of functions ... in user interface design'. This view is not necessa-rily new. Modernists have long made a virtue of reduction: 'less is more', as well we all know. And corporate identity schemes promoted by specialists emphasise simplicity and clarity to 'unify' complicated and diverse multinational businesses. There is a kind of deception of sorts in such schemes. After all, if we better understood the complexity and interdependent nature of our world we might be better able to improve it. This was certainly the aim of radical groups like Bureau d'études in France a few years ago when they produced diagrams charting the spidery networks which connect government, commercial and military interests across the globe.

The ownership of knowledge is one of the chief issues of our times. After all, the mapping of the human genome by Craig Ventor and his team in the early years of the new century – one of the greatest achievements of recent science – has also been the cause of considerable controversy. Some commentators have seen dark interests at work in the patenting of this research. Yet at the same time, the findings of the Human Genome Project, an international research project, are freely available on Gutenberg.org (one of the major Internet libraries).

The controversies over the rights of 'authors' to images, words and now biology is just one aspect of our contemporary concerns about the privatisation of knowledge. The hidden manipulation of public information is just as troubling. The Wikiscanner developed in 2007 by an American hacker, Virgil Griffith, reveals the ways in which institutions manipulate Wikipedia. By exposing the ip addresses of those who edit Wikipedia entries anonymously, Wikiscanner

makes it clear how governments, corporations, political parties and even the Vatican break the site's rules about authorship in an effort to ensure un-critical descriptions of their activities.

Universal knowledge sounds like a good thing, doesn't it? But it carries with it a good deal of hubris and even anxiety. Mapping confers a kind of power, even a 'right' to exploit everything that falls under the gaze of the viewer. There is something marvellous about terra incognita, those spaces on old globes and atlases which are unknown. When there is nowhere on the planet which cannot be 'Google-mapped', perhaps one part of our imagination is shut down. Moreover, our massive digital archives and databases (measured in petabytes and extabytes) encourage us to feel that everything is known, but, according to the Encyclopedia of Non-knowledge published in Germany, we don't even know exactly why humans yawn. Perhaps the explosion of information in the world is itself a cause of dis-order: you know that creeping sense that knowledge is expanding exponentially and you'll never catch up.

Designing Universal Knowledge charts the ideas of the champions and the critics of universal knowledge. There is perhaps something a little Dutch about this. In this brilliant book one can detect veins both of 'protestant' asceticism (systems, simplicity) and permissive, anti-authoritarianism (computer hacking, freedom of speech). This, of course, is less a sign of schizophrenia than of the plurality which the form of the encyclopedia affords.