

Big Idea (Week 10): Intellectual Property

Intellectual property is a term used to denote the creations of the mind — inventions, literary and artistic works, together with the symbols, names, images, process and designs developed for commerce. In the age of information when more and more of our material world has been captured abstractly, reduced to bits to be rendered in physical form algorithmically upon demand, the importance of intellectual property has sky-rocketed. With that heightened importance has come a new chapter in the long, messy history of human cultures trying to get right the necessary balance between rewarding and incentivizing individual ingenuity and the proven social good of free exchange of ideas and creative improvement on past practices.

The legal notion of intellectual property has its origins in the ancient rights of guilds to protect their particular craft knowledge and mark appropriately the material property it generated. As technology and geographically extended trade widened the separation between human creator and material product, craft knowledge deepened to become process knowledge, putting ever greater pressure on monarchs and local authorities to choose carefully how they awarded monopolies on new commercial and cultural practices to local practitioners so as to balance the stability of social order against the desire for better goods. The advent of printing brought knowledge itself into the public domain of commodities, creating a crisis of confusion in the local principalities between the push for public access driven by spreading literacy vs. the demand for private incentives spreading into the realm of owned knowledge. In particular, printing dramatically reduced the marginal cost of discovery and reproduction and the proper assignment of its economic value took centuries to work out, leading to the first formalized patent and copyright laws introduced in 17th century Britain. These regulations achieved a viable balance between social good and individual incentive by assigning a limited time monopoly to the creators of intellectual property. They quickly spread throughout Europe and the colonies and, eventually, propelled by international trade, across the globe.

Similar principals of intellectual property and the right of the government to award limited time monopolies to its creators are enshrined in the United States Constitution¹ and have been successfully adapted to the evolving demands of commercial innovation and cultural development associated with our nation's quarter-millennial rise to global economic pre-eminence. However, many observers now feel that the ubiquitous reduction to "bits" of all material phenomena, now including even life itself, together with revolutionary changes in cost of marginal reproduction associated with the information age have thrown these traditions off balance. We seem to have entered into yet another very messy period that will require the development of new, more technologically nuanced principals of ownership and public fair use before the balance of social good and individual reward is restored to the legal regulation of intellectual property.

¹Article 1, Section 8, Clause 8: To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries