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CREATIVITY AS A PROCESS AND OUTCOME

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## CREATIVITY AS A PROCESS AND OUTCOME

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In many European countries, and in the United States, people tend to possess a stereotypical image of the creator, and of the creative process. The creator is often thought to be an outsider, someone uncomfortable with authority, someone who chafes at the restrictions of convention. The creator tends to work best alone, far away from the limited forces of society and convention. The creative process requires that the creator throw off the shackles of societal convention and work unfettered by constraint, unlimited by what has come before. A sudden flash of insight is followed by work that results in the creative outcome.

After several decades of recent scientific research, scholars have learned that this stereotypical image is essentially a myth, born of the 19<sup>th</sup>-century Romantic period and its valorization of the individual. Exceptional creators are rarely isolated, lone geniuses. In fact, almost all creativity emerges from deeply social and collaborative processes. Creativity is enhanced when working with others; creativity is enhanced in certain kinds of social and organizational settings. After substantial study of the nature of the creative process, scholars have learned a great deal about the collaborative dynamics and the organizational forms that foster maximum creativity.

My talk focuses on three forms of the creative process.

First, creativity occurs in collaborating groups. I briefly describe my research studies of jazz ensembles and improvisational theater groups, and I identify the key features of improvisational performance. I then show that many successful collaborations, throughout the arts and also in business, result from teams that follow an essentially improvisational process. Even those creative products that we tend to believe originated from an isolated, lone genius, often result from collaborative circles—famous historical examples include the French Impressionist painters in Paris in the 19<sup>th</sup> century, and a circle of British novelists at Oxford that included J.R.R. Tolkien and C.S. Lewis.

Second, creativity occurs in individual minds. I summarize recent psychological research into what goes on in the mind when people are being creative. The key finding is that creativity is always a combination of existing ideas, and people are more creative when they have encountered and mastered a broader variety of ideas. These mental connections are fostered by frequent collaboration with others, and active participation in social networks.

Third, creativity occurs in broadly distributed social networks that I call “collaborative webs.” The best-known examples of collaborative webs are open source software communities, such as the community that develops and maintains the Linux operating system. But there are countless such examples in today’s economy. Many famous historical inventions likewise emerged from collaborative webs—including the airplane, the telephone, the light bulb, the telegraph, and windows and mouse personal computer operating systems (including both the Macintosh and Microsoft Windows), all emerged from the diffuse and distributed contributions of many individuals. In every case, it is incorrect to speak of “the

inventor” of such an invention, because such inventions had many contributors and emerged, over long periods of time, from a diffuse collaborative web.

I conclude my talk with a few brief comments about the implications of this research for intellectual property law. The implications are dramatic and profound, because in many countries, the IP regime is not designed to foster the natural flow of the creative process at these three levels: group, individual, and social network. I identify a few of the more substantial problems with the IP regime in the United States, and propose alternatives that would more closely align with the nature of the creative process.

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