Part 4. The role of Intellectual Property and Technology

Box 6.1 Design as a key ingredient for growth

In his youth, Ingvar Kamprad began buying and selling a variety of items and reinvesting the profits. While he was still a teenager, he founded what would eventually become the multi-billion-dollar interior design company, IKEA, which has 104,000 employees worldwide. In 1947, his introduction of furniture into the company product line met with such success that in 1951, he dropped all other product lines and focused on furniture. The design process always starts with the price tag. Kamprad’s vision “to create a better everyday life for many people” has guided the company, spurring creativity by forcing it to always strive towards new, ground-breaking design solutions. The aim is to produce well-designed yet functional products accessible to as many people as possible while encouraging innovation.

The company also has a long history of working with talented, internationally recognized designers. In the 1960s, for example, it was helped by famous designer, Taipo Wirkkala, a recognized glass artist whose works can be viewed at the Metropolitan Museum of Art in New York. The tradition of these collaborations has continued to give customers the chance to decorate their homes with something a little more special. At the same time, it helps artists to reach a wider audience through the remarkable influence and large target group of the company. The encouragement of design innovation has not only proved successful in terms of economic revenues but it has led to widespread recognition through several design awards, such as the Excellent Swedish Design Award and the internationally prestigious “red dot for highest design quality”.

With a strong concept that is characterized by Swedish values, Scandinavian design, a healthy environment, cost-consciousness and informality, the company not only helps to put Sweden on the map but it also uses its origin as an engine to reach its own goals since it is not tailor-made policy programmes that explain the company’s success but rather, general conditions that enabled the company to grow. Professor Richard Florida, author of The Rise of the Creative Class, places Sweden at the top of his list for a global creativity index.

By Tobias Nielsén - Lena Rune, QNB Volante.
Box 6.2 The Da Vinci Code case

A copyright infringement case was brought against the publishers of The Da Vinci Code by Michael Baigent and Richard Leigh, two of the authors of a 1982 non-fiction work, The Holy Blood and The Holy Grail. According to an article in the June 2006 issue of WIPO Magazine, “At the centre of the dispute was a ‘hypothesis’ presented in The Holy Blood and The Holy Grail” according to which “references to the Grail in early manuscripts were disguised references not to the chalice, but rather to holy blood or Sang real, i.e. to the bloodline of Jesus Christ, and to the belief that this bloodline ... had continued and merged with the French Merovingian dynasty”.

The plaintiffs “claimed copyright in the literary work and alleged that Dan Brown”, author of The Da Vinci Code, “had copied the way in which they had made the sequence of connections of the facts of the merging of the bloodlines. Since there was little copying of the actual text of The Holy Blood and The Holy Grail, the claim was that there had been non-literal copying of a substantial part of their literary work”.

The Holy Blood and The Holy Grail “is comprised largely of historical facts which are unprotectable ideas. Baigent and Leigh based their case, therefore, on the claim that Brown had taken a substantial part of the ‘manner’ in which they had expressed those ideas, as opposed to taking the ideas themselves”.

“The court held that, while the evidence was clear that Dan Brown and his primary researcher (his wife) had drawn on The Holy Blood and The Holy Grail to a greater extent than Brown had acknowledged, this did not mean that he had infringed copyright in the book. Rather, they had used The Holy Blood and The Holy Grail, and other books, to provide general background material for the writing of The Da Vinci Code”.

“The significance of the case for copyright law relates to the fact that the lawyers acting for Baigent and Leigh attempted to make – and lost – an argument that there can be non-literal copying of a work of literature. The non-literal argument has previously been successfully used, usually in the case of computer programs or recipes or knitting patterns.”

Source:

Box 6.3 A collaborative approach to creativity and knowledge

Wikipedia is a multilingual, Web-based, free-content encyclopedia project. It is written collaboratively by volunteers from all around the world and its articles can be edited by anyone with access to the Internet. The name Wikipedia is a portmanteau word combining “wiki” (a type of technology that allows users to update a web page using their Web browser) and “encyclopedia”. The mission of the Wikimedia Foundation, which, among other things, manages Wikipedia, is to empower world citizens to share in the sum of all human knowledge. This is done by engaging people worldwide to collect and develop educational content under a free-content licence or in the public domain and to disseminate it effectively and globally. Since its creation in 2001, Wikipedia has grown rapidly into one of the largest reference websites. According to Alexa Internet, Inc., a company providing information on Web traffic, it is one of the 10 most visited websites in the world.

In every article, links will guide the user to associated articles. Anyone is welcome to add information, cross references or citations as long as they do so within the Wikipedia editing policy and to an appropriate standard. The Wikipedia software, known as MediaWiki, is carefully designed to allow easy reversal of editorial mistakes.

Because Wikipedia is an ongoing work to which, in principle, anyone can contribute and articles are “living”, it differs from a printed reference source in important ways. In particular, older articles tend to be more comprehensive and balanced, while newer articles may still contain misinformation, content that is not encyclopedic in nature, or vandalism. Users need to be aware of this so as to obtain valid information and avoid misinformation that has recently been added and not yet removed. Information that remains in Wikipedia needs to be sourced. As a result, most articles have several links to primary sources, which are listed at the bottom of each article. Unlike a printed reference source, Wikipedia is continually updated, with the creation or updating of articles on topical events within minutes or hours rather than months or years for printed encyclopedias.

Wikipedia is a registered trademark of the nonprofit Wikimedia Foundation, which has created an entire family of free-content projects. On all these projects, people around the world are welcome to be bold and edit articles, contributing knowledge as they see fit in a collaborative way.

Wikipedia was founded as an offshoot of Nupedia, a now-abandoned project to produce a free encyclopedia. During 2000, Jimmy Wales, founder of Nupedia, explored ways to make Nupedia a more open, complementary project. Eventually, he was introduced to the Wiki technology and Wikipedia was born. In 2003, Wales created the Wikimedia Foundation, a
charity, essentially giving Wikipedia and its sister projects to the world. In March 2007, the word “wiki” became a newly recognized English word.

There are more than 75,000 active contributors working on some 700,000 articles in more than 253 languages. As of today, there are 2,096,561 articles in the English-language version; every day, hundreds of thousands of visitors from around the world make tens of thousands of edits and create thousands of new articles to enhance the knowledge held by the Wikipedia encyclopedia.

All of the text in Wikipedia and most of the images and other content are covered by a GNU Free Documentation Licence (GFDL). Contributions remain the property of their creators, while the GFDL licence ensures that the content is freely distributable and reproducible.

Many visitors come to the site to acquire knowledge, others to share knowledge. In fact, at this very instant, dozens of articles are being improved and new articles are being created. You can view changes as they happen. You can also view random articles. Over 1,708 articles have been designated by the Wikipedia community as “featured articles”, exemplifying the best articles in Wikipedia. Another 2,500 articles are designated as “good articles”. Wikipedia also has portals, which organize content according to topic areas.

By Sandy Ordonez, Wikimedia.
Website: http://www.wikipedia.org/

Box 6.4 Jewellery: A magic marriage between tradition and contemporary design

Diamonds, emeralds, aquamarines, amethysts, topazes, tourmalines, rubies, sapphires and many more inspiring beauties are some of the hundreds of colourful precious and semi-precious stones abundant in countries such as Brazil, Ghana, India, the Lao People’s Democratic Republic and South Africa.

Exported for a long time simply as raw materials for top foreign designers. Now, however, developing countries are perceiving jewellery as a perfect match between tradition and high value-added activity.

The first facet of this market comprises traditional cultural expressions, defined by WIPO as “productions consisting of characteristic elements of the traditional artistic heritage developed and maintained by a community ... or by individuals reflecting the traditional artistic expectations of such a community, in particular ... tangible expressions, such as: ...jewelry”. Indeed, jewels have always been intrinsic to the everyday life of traditional
communities.

Works of art with religious and other symbolic meanings, jewels play an important role in maintaining traditions. Andean jewellery, for instance, has its roots in pre-Hispanic times. In Africa, ornaments made of precious stones are believed to have a talismanic power. Indian jewellery is found in most traditional representations as sacred ornaments and takes on regional nuances.

Old gemstone markets are also a rich part of the cultural and economic life in a range of countries. A paramount example is the gem market in the heart of the old Thai city of Chantaburi, a paradise for ruby and sapphire trade since the middle of the nineteenth century and a magnet for tourists. The Ghanaian tradition in jewel-making, dating back to the fifth century BC, has been passed down through the generations to craftsmen and craftswomen using techniques such as granulation, lost wax casting, filigree and chasing and is now evident in the local industry of over 1,000 indigenous artisans based in cities such as Accra and Kumasi.

Over the centuries, precious stones were considered the proper ornaments for kings, queens and religious chiefs on all continents, with the power to protect and cure their holders. The multitude of meanings of jewellery has shaped civilizations down the ages, as reported by Pliny the Elder in the last chapter of his Natural History, written in 77AD. In describing their uses, he referred to famous artists and their creations and to Roman architectural styles and technology.

For thousands of years, traditional jewellery remained unchanged. Recently, however, producers of precious stones are approaching the jewellery market differently, expressing traditions through contemporary design. Trade and trends at a global level have favoured fashion as a fundamental sales driver, and jewellery manufacturers are rushing to adjust their product designs to cater to this segment while keeping a foot in their cultural roots. In Ghana, artisans combine traditional cultural influences such as traditional Ashanti and Fanti styles with contemporary design, turning old and rare glass beads along with brass, horn, gold and silver pieces into wearable jewellery.

The market potential has not remained unobserved by the business world or governments. Tanishq, India’s largest jewellery brand and part of the gigantic Tata Group, announced in 2007 the opening of its new 3,500 sq ft store in Koramangala, Bangalore. Tanishq specializes in creating contemporary products inspired by India’s rich heritage. The H. Stern Brazilian chain, created in the 1950s, nowadays employs 3,000 people and appears in the articles and photographs of the most respected fashion magazines in the world. Its creations are strongly based on design in a dialogue with architecture, fashion, music and the arts in general. The
42,000 sq ft headquarters in Rio de Janeiro is the largest space built for jewellery production and trade in the world. In Ghana, the industry is supported by training colleges and university courses such as the Jewellery College located at the Weija Industrial and Commercial Estates in Accra and the Metal Products Department of the Kwame Nkrumah University of Science and Technology, which graduates skilled artisans each year. The Government of Ghana has a number of programmes to boost investment and productivity in the jewellery sector through the Ministry of Trade and Industry, the Ghana Export Promotion Council and the Ghana Investment Promotion Centre. These activities have resulted in a significant rise in the domestic production and sale of jewellery in the country.

Box 7.1 When ICTs give rise to new business models

For every action, there is an equal and opposite reaction. ICTs and the creative economy seem to form the perfect ground for the validity of Newton’s third law. The more concentrated the audiovisual and music markets become in the hands of a few transnational conglomerates, the more alternative business models emerge. Back in 2000, the music sector was revolutionized by peer-to-peer file-sharing programmes such as KaZaA and Napster, which by 2001 had conquered no less than 3.5 million users.

As creativity seems to reinvent itself, a similar business model was created with Skype. Sold to eBay for $2 billion in 2005, it is now being applied to Joost Internet TV, with a promise to disrupt the oligopoly of the television industry.

By the same token, a myriad of open-source initiatives mushroom in other creative-economy markets, presenting more humble turnovers but provoking a shift in mindset on all continents. In Mexico, Tortillería Editorial is an association of authors, professionals and beginners who decided they would not have much control over their books if they were to follow the usual publishing-house circuit. As a reaction, they created a mix of database, software and site where they share their books and writings, allowing any user to generate, print and sell them. In 2007, it reached more than 4,000 texts and hundreds of authors.


By Ana Carla Fonseca Reis, Garimpo de Solucoes, economia, cultura & desenvolvimento and Avril Joffe, Director, CAJ: culture, arts and jobs.
In Brazil, where internet use is comparatively high, Web 2.0 is facilitating the spread of open-source software. Overmundo, a Government-funded project, was commissioned to ensure the alternative cultural coverage, mainly outside the São Paulo-Rio de Janeiro axis. Incorporating strong community participation, users are responsible for its content and design. Overmundo has become a globally recognized cultural database of Brazilian culture with more than 700,000 references via Google. Not surprisingly, it won the Prix Arts Electronica International Competition for CyberArts in 2007.

**Box 7.2 Free and open-source software and the creative economy**

The development of the creative economy relies to a certain extent on digital information and communication technologies (ICTs) that have, on their own, been widely recognized as important pillars for economic and social development, most recently within the WSIS process and its outcomes. While access to network infrastructures and hardware technologies is fundamental, it is also insufficient. Access to software and the knowledge needed to understand, adapt and use it is critical if digital technologies are to achieve a positive development effect. Specifically addressing the issue of software helps to refocus policy and development thinking towards the human element. After all, software is the interface between cold digital hardware and the impulses of creative and innovative individuals. The development and production of software itself are a fundamentally creative and conceptual effort of problemsolving and design.

Free and open-source software (FOSS) is software that does everything that other software does. It is used for writing text, email, Internet browsing, spreadsheets, statistics and data management, etc. There are many programmes that can be used in music and audiovisual production. The opposite of FOSS is proprietary software. Proprietary software, through copyright law and end-user licences, forbids users to copy, redistribute or alter the software and permits use only as narrowly specified within its particular licence.

**What is FOSS?**

FOSS is different from proprietary or closed-source software in three important ways, which are interlinked and interdependent.

1. FOSS has distinct copyright statement and end-user licences. FOSS licences permit users to copy and redistribute the software without restrictions. The most popular licence, the so-called General Public License (GPL), imposes a unique restriction: all copies, regardless of how much the software has been altered, must also use the GPL and thus permit perpetual unrestricted copying.

2. FOSS licences require that authors of a particular software programme make the source
code publicly available. The source code is the software written out as ordinary text in a programming language. Access to the source code allows anyone to copy or technically alter the performance and features of a programme. It also allows young computer scientists to learn how a world-class software programme is designed and developed.

3. Finally, FOSS generates important positive economic externalities. It reduces cost redundancies in redeveloping similar software, in particular when this is procured by public bodies or government. It reduces the risk of being locked in by a vendor selling a proprietary software product and seeking monopoly rents. FOSS also reduces the risk of vendor failure, whereby the producer of a proprietary software ceases to do business but does not release into public domain the source code of the software, making it unserviceable in the future and impossible to upgrade and follow advances made in the other computer hardware and software. It reduces market imperfections and promotes greater competition among ICT service companies that can, using FOSS, compete on quality of service and competence since it is not possible to charge rents from copyright monopolies – these simply do not exist for FOSS. Finally, FOSS permits “looking under the hood” and allows better and faster technological capacity development in ICT and computer science.

There is nothing in any FOSS licence that forbids anyone to sell any FOSS programme. However, many companies that market FOSS programmes actually sell only the service component while the licence is free. In general, in the software business, the service component accounts for more than half of the revenues of most software companies anyway. Thus, providing FOSS on a commercial basis does not represent a significant shift in the business model for the ICT industry.

Any software, FOSS or proprietary, can be commercial. Commercial means “available on the market and used in a commercial, for-profit environment”.

Proprietary software companies will sometimes try to distinguish their software as “commercial” as opposed to “FOSS”. This is a marketing strategy meant to convince buyers that there is a “commercial” grade or quality that is lacking in FOSS. Nothing could be further from the truth: the most robust and technically advanced software programmes as used by Yahoo.com, Google.com, NASA, many ministries of defence (including the Pentagon), academic and research institutions (the European Organization for Nuclear Research known as CERN and Massachusetts Institute of Technology), and ICT industry behemoths such as IBM or Sun Microsystems are FOSS.

**Importance for developing economies**

The advantages for developing economies in developing and using FOSS are big and important.
1. FOSS reduces dependency on expensive and imported proprietary technology and the accompanying ICT consultancy services that are often tied up with various non-disclosure agreements.

2. FOSS, through its open code and public licences, promotes knowledge-sharing, technology transfer and unrestricted cooperation in knowledge and technology development and use.

3. FOSS enables the development of local human capacity and home-grown ICT service industries that can become more than merely fronting businesses selling imported technology.

4. FOSS is economically more efficient because of the positive economic externalities that it generates as described in the previous point.

5. As the main cost involved for using any software is the service component and because FOSS allows local computer experts to learn to work with and service FOSS programmes, FOSS is more affordable than non-pirated – i.e., legal – proprietary software alternatives for the vast majority of developing economies.

6. FOSS is fully intellectual property-regime compliant: it needs and uses copyright to maintain and promote its openness. While its spirit is anti-restrictive, it does not confront current intellectual property from a formal, technical or legal perspective. Countries, institutions, businesses and individuals that switch from using pirated software to FOSS work to fulfil their obligations as designated by WIPO and WTO/TRIPS conventions and agreements.

7. FOSS promotes good governance: It means that public data will be kept in public data- formats and managed by software the source code of which can be inspected and verified by independent bodies. This is immensely important in applications such as taxation, voting or military and defence use.

8. FOSS promotes the use of open standards and this improves interoperability among different software programmes, thereby reducing the costs when these need to be made to work together – such as merging databases or establishing common project or financial management systems.

9. FOSS allows easy localization. Any FOSS programme can be translated and altered to suit the linguistic, cultural, commercial and regulatory needs and requirements of any location, all without having to seek permission from the original authors or exchanging terms and conditions while using (expensive) legal intermediaries and consultants.

10. Many experts feel that FOSS is more secure, more reliable and more stable than proprietary software. While the debate is inconclusive, what is sure is that FOSS problems can be fixed locally by local experts.

The international community should promote the idea that government policy bodies need
to be aware of FOSS and include it in their ICT and e-strategy programmes, in e-governance activities and in procurement policies. More importantly, it should promote the notion that when Governments choose a particular technology, the decision to select FOSS or a proprietary (or mixed) solution is an important policy issue and not a purely technical, practical or cost consideration. Because FOSS generates important and positive economic externalities, software choice – and technology choice in general – should not be relegated to oversimplifications and assessments along the lines of “what works” (even though FOSS actually works better most of the time) or how costs compare from an accounting perspective. Accounting “analyses”, often referred to as “total cost of ownership” or TCO calculations, are notorious for ignoring local economic conditions as well as positive externalities, such as the development of local human capital through FOSS use. Therefore, while the decision to use FOSS initially is often understood to be a technology-awareness issue, it finally becomes an important policy issue.

**FOSS and LDCs**

While ethical principles, skills development, compliance with international copyright conventions and national law, public-data governance and better security are often cited as key reasons for adopting a positive policy stance towards FOSS use, for LDCs, cost issues can be a primary concern. While in developed market economies proprietary licence fees may constitute as little as 5 to 10 per cent of total costs of running a computer resource – with administration, maintenance, integration and support, and hardware representing the rest – in low-income economies, licences may represent the bulk of total costs. This is owing to the fact that aside from hardware and licences, all other costs are essential, non-tradable, labour-intensive services and these demand correspondingly low wages in LDCs. While hardware costs are manageable to some extent through bulk purchasing from original equipment manufacturers, using thin-client technologies\(^1\) or recycling outdated hardware from developed market economies, FOSS offers an opportunity to avoid paying licence fees altogether.

\(^1\)See: http://www.itu.int/wsis/index.html .

\(^2\) A thin client is a minimal, stripped-down computer and software combination that depends primarily on a powerful central server for data processing and memory and therefore serves mainly as an input-and-output device between the user and the central server.

By: Dimo Calowski,
UNCTAD, E-Commerce Branch.
Box 7.3 Eurovision

Geneva-based Eurovision is not only the home of the world's most popular musical talent show, the Eurovision Song Contest; for almost 50 years, it has also offered a distribution platform to Europe’s public broadcasters for an exchange of news items. Since October 1958, Europe’s public broadcasters have provided one another with coverage of news events in their countries on a reciprocal basis. The added value of the Eurovision News Exchanges was already clear during the first experimental news exchange, when Pope Pius XII fell ill. When he passed away two days later, the editor of the Dutch television news bulletin made history by asking for “the dead Pope live”, and Eurovision arranged for a live broadcast from the Vatican.

Today, the Eurovision News Exchanges handle over 42,000 news items per year, using two satellite channels for both news reports and extensive live coverage of events. Eurovision News Exchange items cover wide-ranging topics from the worlds of politics, culture, science, business, religion and sports.

United Nations agencies began offering items to the Eurovision News Exchanges in the mid-1970s. Today, content provided by FAO in Rome, ILO, IOM, UNCTAD, UNHCR, UNICEF, UNTV, WFP, WHO, WIPO and WMO as well as the International Atomic Energy Agency in Vienna, the International Criminal Tribunal for the Former Yugoslavia in the Hague, and others adds additional breadth to the Eurovision News Exchanges and helps more than 100 national and international broadcasters fill their daily news bulletins. United Nations videos, particularly concerning unfolding humanitarian crises, provide broadcasters with essential material from regions of the world where press access may be limited and about conflicts in their earliest stages.

Video material from the United Nations is also distributed outside of the News Exchanges via Eurovision’s World Feed Service, which began in 2005. Live coverage of the 62nd General Assembly in September 2007 was distributed to more than 300 broadcasters worldwide. This cooperation between Eurovision and the United Nations is only the most recent in a fruitful partnership that dates back more than 30 years and puts United Nations material in front of editors in major TV newsrooms around the world. Additional information about Eurovision is available online at: www.eurovision.net.

By Laura Downhower, 
Eurovision.
**Box 3.1 The Tecnobrega case**

Tecnobrega, a music style that originated in the Pará State in northern Brazil, is revolutionizing the nation’s music market. The Paraense brega music market is a dynamic sector of Belém’s economy: it moves parties, sound systems, artists, studios, DJs, party planners, party and concert houses, promotion ventures and the sale of many related products. It provides livelihoods for a vast number of professionals and artists, as well as a source of revenue and taxation for the local public sector.

Participants in the tecnobrega business often play multiple roles. A studio DJ, for example, can also be a street vendor or a sound system DJ. A band singer might also be a producer or party planner. DJs and singers are also composers and CD producers, reporters or radio and television hosts. The relationship between actors is not just monetary, but also highly social.

The tecnobrega market has developed an alternative model for producing and distributing compact discs operates in parallel to the formal industry model. “The mapping of this business model allows us not only to understand this new structure, but mainly to think of the possibility of its replication,” writes Lemos Ronaldo. “To this, four aspects merit consideration: the innovation with value, the ‘technology cultivation’, the promotion system based on the NARPs (Non- Authorized Re-Producers), and the absence of payment to the individual who is only the composer”.

Copyrights are traded by how many times a song is played in radios within the city and also by the multiplication of CDs in the informal market. Making ownership rights more flexible may result in greater feedback, in terms of promotions and contacts, than if they followed the formal rules of intellectual property rights.

“Innovation is an important aspect of the bregueiro universe,” Ronaldo writes. “It talks about not only the incorporation of new technological apparatus, but also the demonstration of the personal creativity of the artist.” Competition among the actors involved is fundamental, as it motivates them to seek out new forms of action and problem solving.


By Simon Evans,
a cultural entrepreneur and founder of Creative Clusters Ltd.
According to the report, the creative economy more than doubled between 2002 and 2008, with a yearly growth rate during that period averaging 14 per cent. Exports of creative goods from developing countries reached 43 per cent of the total creative-industry trade in 2008. Ms. Grynspan said that, when work on the sector first started, the subject seemed esoteric, but all the agencies sensed it was important from a development point of view. Poor countries often had great intangible assets that could be made economically viable and engage women, unemployed youth and diverse cultural groups. The Since 2007 the creative economy debate in Pakistan has revolved around the cultural industries. Advocacy in this area has been successfully led by UN agencies, who have argued for the preservation of traditions and heritage and socio-economic inclusion of rural populations. These are important elements and can significantly contribute to the Cultural Industries. However, Pakistan has far more to offer and the broad landscape is far richer and more diverse. This report draws attention to the importance of the Creative Industries in realising the human development agenda in cities.