



InterPARES 2 Project

International Research on Permanent Authentic Records in Electronic Systems

Areas That Should Be Covered Validated

Case Study 09(2): Digital Moving Images – National Film Board of Canada

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Creator of the Fonds		
TOPIC	SPECIFICS	SOURCE
Name	The National Film Board of Canada	FR, pg. 1
Location	Ottawa, Ontario (head office) Montreal, Quebec (operational headquarters)	NFB Web site
Origins	<ul style="list-style-type: none">Established by an act of Parliament in 1939 to complement the activities of the Government Motion Picture Bureau.The enabling legislation stated the NFB was to “make and distribute films designed to help Canadians in all parts of Canada to understand the ways of living and the problems of Canadians in other parts.”	FR, pg. 1; NFB Web site
Legal Status	Federal government cultural agency within the Canadian Heritage Department	FR, pg. 1; NFB Web site
Legislation	Legally established in 1939. The National Film Commission soon became known as the National Film Board Specific legislation includes: <ul style="list-style-type: none">1950 National Film Act: revised the NFB’s mandate to “produce and distribute and to promote the production and distribution of films designed to interpret Canada to Canadians and to other nations.”Canadian copyright law: the product of employees became the property of the NFB. Presently, the increase in contracting out of film has led to complex rights management issues	FR, pg. 1
Norms	Information not available in the final report	
Funding	Canadian federal funding	Inferred
Resources	In general, most work is contracted out so a variety of physical contexts exist in which work is being carried out.	FR, pg. 1
Governance	The NFB falls within the portfolio of the Canadian Heritage Department. An explanation of the general physical structure/organization of the NFB exists on its Web site	NFB Web site

	<ul style="list-style-type: none"> Government Film Commissioner: also acts as head of NFB; appointed for 5 year term Board of Trustees: 8 members consisting of the Government Film Commissioner (chairperson), the Executive Director of Telefilm Canada and 6 other members appointed by the Governor in Council Management team: Branch Directors, Innovation and Technical Resources, Communications and Outreach Development, Administration, Distribution, Human Resources, Planning, Program Evaluation and Audit, Business affairs and Legal Services An executive producer heads each production office; independent directors make the NFB films 	
Mandate	"The NFB's mandate is to produce and distribute distinctive, culturally diverse, challenging and relevant audiovisual works that provide Canada and the world with a unique Canadian perspective"	NFB Web site
Philosophy	A vision of being "indispensable to all Canadians as the world-renowned public producer and distributor of audiovisual works that are socially relevant and innovative"	NFB Web site
Mission	<ul style="list-style-type: none"> 1939: "To make and distribute films designed to help Canadians in all parts of Canada to understand the ways of living and the problems of Canadians in other parts." 1950: "to produce and distribute and to promote the production and distribution of films designed to interpret Canada to Canadians and to other nations." 1984 addition: "A world centre of excellence in production of films and videos." And "A national training and research centre in the art and technique of film and video." 2002: "To produce and distribute distinctive, culturally diverse, challenging and relevant audiovisual works that provide Canada and the world with a unique Canadian perspective." 	NFB Web site FR, pg. 1 NFB Web site
Functions	<ul style="list-style-type: none"> Serve the public interest Facilitate access to NFB films Be part of the international film scene (esp. in the Developing World) Be a leader in film technology, research and development and professional training Play a role in Ottawa's national film policy 	NFB Web site
Recognitions	Information is not available in the final report	
Activities Resulting in Document Creation		
<i>Administrative & Managerial Framework</i>		
TOPIC	SPECIFICS	SOURCE
General Description	<ul style="list-style-type: none"> To create, or aid in all aspects of the creation of audio-visual productions through to the distribution and preservation of films and videos. "To create moving image products which can be used theatrically, broadcast on television, the Internet, or distributed through videocassettes and DVDs." 	FR, pg. 1 FR, pg. 2-3

Type of activities	<ul style="list-style-type: none"> Information not specified in the final report. Details on the activities of the different sections of the NFB (Management Team, Board of Trustees, Commissioner) is available on the NFB Web site Administrative activities of the NFB can also be inferred from the list of documents resulting from activities below. 	NFB Web site
Documents resulting from activities	<ul style="list-style-type: none"> Text: correspondence, budgets, budgetary reports, contracts, research reports, storylines, treatments, etc. Art work: work done in promoting films and in creation of films Databases: Brought together under one database, Synchrone ("centralized knowledge management system presenting all qualitative and quantitative information on an NFB production or co-production in one view") Music: Scores and recorded music 	FR, pg. 3 FR, pg. 3, 5 FR, pg. 3
Existence of a RM and/or archives program	<ul style="list-style-type: none"> Synchrone: an integration of multiple databases such as SEGDA (system storing information on rights to NFB productions), a financial and budget management program and a vault management system (allows access to master copies and production footage). Synchrone is built on an Oracle database engine and functions as "a centralized knowledge management system presenting all qualitative and quantitative information on an NFB production or co-production in one view." Synchrone uses a register system that creates one file for each film. Synchrone contains entities arising from the creation of film (and all supporting documentation), the products of marketing and distributing, the completed film itself and the scanned files of documents such as photographs, music cue sheets, etc. Its core is an electronic rights management system. 	FR, pg. 2, 6 FR, pg. 5 FR, pg. 5
Individuals responsible for preservation	<ul style="list-style-type: none"> A separate division, Innovation and Technical Resources, within the NFB is responsible for dealing with problems of preservation. The Information Technology section is responsible for maintaining all servers on which the animation is stored during the course of creation, and for the hardware to allow the digital objects to be retrieved. 	FR, pg. 2; NFB Web site FR, pg. 11
Existence of Preservation Strategies	Information not available in the final report.	
Legal Requirements and Constraints	<ul style="list-style-type: none"> Because the NFB's work is primarily done under contract, terms and obligations are addressed in each contract. There are complexities associated with film rights due to the contracting out of work. (The re-purposing of material involving re-encoding alters the original production to some degree and may distort the author's original intent.) 	FR, pg. 15
Normative Requirements and Constraints	Information not available in the final report.	

Technological Requirements and Constraints	<ul style="list-style-type: none"> • Oracle Database system • Types of media: textual, graphic and audio • Formats: MS Office documents, TIFF and TARGA files • Records in the recordkeeping system come mostly from office systems such as Microsoft Office and from different graphic systems. • All the documentation relating to a production is in a production file; most of which is created and maintained as electronic records (Microsoft Office documents and graphic files); large parts kept on the intranet (Synchrone system) • For the animation creating activity, there is no information management system working across the entire organization. • This is problematic because needed information is not always supplied to different parties quickly. To avoid problems and to determine what problems might arise during the post-production stage, the early output of an author is run through all the workflow to see if any procedures need to be changed. 	FR, pg. 5, FR, pg. 8 FR, pg. 13 FR, pg. 12 FR, pg. 8 FR, pg. 8
<i>Digital entity being studied</i>		
General Description	Digital animation product and documentation relating to production The Synchrone database	FR, pg. 4
Type of activities	<ul style="list-style-type: none"> • Each animator decides on the exact procedures used to create the film. Approximately 1/3 of animators create images directly on the computer, others use purely analogue methods or a combination of both. • Activities such as the writing of contracts, signing off, correspondence between animator, producer and others serve to create the digital entities stored in the Synchrone database system. 	FR, pg. 4 FR, p. 5
Documents resulting from activities	<ul style="list-style-type: none"> • Film frames are stored as TIFF or TARGA files • A production file exists containing all information pertaining to a production and it includes both paper and digital elements, generally as Word documents 	FR, pg. 5
Existence of Preservation Strategies	<ul style="list-style-type: none"> • Copy digital files to film because it has a known life span, can be inspected with the naked eye and can be copied at a later stage to new electronic forms • Or, write the digital files to Betamax. • Digital objects also stored on DLT • Digital materials are encoded in the Cineon and AVI formats 	FR, pg. 8 FR, pg. 6 FR, pg. 14
Legal Requirements and Constraints	<ul style="list-style-type: none"> • Information not available in the final report. • Legal contracts outline the rights and responsibilities of the animators and of the NFB. 	FR, pg. 17
Normative Requirements and Constraints	Artistic requirements and constraints: <ul style="list-style-type: none"> • The animator determines how he or she wants film frames treated in post-production (stage at which the final product is assembled). • The animator makes the decision as to which equipment and software to use, but must decide which of three directions a work will go: film, Standard Definition video or High Definition video 	FR, pg. 8 FR, pg. 9

Technological Requirements and Constraints	Equipment: <ul style="list-style-type: none"> Digital entities comprising the animation may be created directly on the computer through the use of graphics tablets, electronic pens, electronic paintbrushes, software, etc. Or, may be produced through drawings on paper that are scanned 	FR, pg. 6
	Architecture: <ul style="list-style-type: none"> Network server Oracle database Hardware can be PC or Mac depending on the animator 	FR, pg. 5, 7
	Creation tools: <ul style="list-style-type: none"> Animation uses off the shelf graphics (e.g., Adobe Photoshop, Flash and Softimage) 	FR, pg. 6
	Media: <ul style="list-style-type: none"> Textual, graphic and audio 	
	Formats: <ul style="list-style-type: none"> Each digital frame is stored as TIFF (two-dimensional work) or TARGA (three-dimensional work) files and stored on linear digital tape. The production is also stored as MPEG encoded files Final product is written to film or Betamax and DLT If different versions of digital entities are created, each must have a separate identification number to be able to retrieve them (these are stored on the server and not the recordkeeping system until after production; and, are only accessible to those working on the production). Author may also copy each day's work to a DVD as backup Film frames are stored both on the author's personal computer and on the NFB's network server. For Web-based purposes, contractors are asked to provide the source code for an entity so it will be possible to recompile and use the files when software changes occur. 	FR, pg. 8, FR, pg. 8 FR, pg. 8 FR, pg. 14