Federal Court  Cour fédérale

Date: 20221024

Dockets: T-113-18
T-206-18

Citation: 2022 FC 1388

Ottawa, Ontario, October 24, 2022

PRESENT: The Honourable Mr. Justice Lafrenière

Docket: T-113-18

BETWEEN:

ROVI GUIDES, INC. AND TIVO SOLUTIONS INC.

Plaintiffs/
Defendants by Counterclaim

and

BELL CANADA

Defendant/
Plaintiff by Counterclaim

Docket: T-206-18

AND BETWEEN:

ROVI GUIDES, INC. AND TIVO SOLUTIONS INC.

Plaintiffs/
Defendants by Counterclaim

and

TELUS CORPORATION, TELUS COMMUNICATIONS INC. AND TELUS COMMUNICATIONS COMPANY

Defendants/
Plaintiffs by Counterclaim

PUBLIC JUDGMENT AND REASONS

I. Overview

[1] The two cases before me are patent infringement and validity proceedings brought under the *Patent Act*, RSC 1985, c P-4 [*Patent Act*].

[2] At issue in the proceedings are certain claims in four patents that relate to "interactive television program guide" [IPG] and "internet protocol television" [IPTV] technology.

[3] At a high level, an IPG consists of software that generates for display television program listings. The interface allows the user to interact with the displayed content, for example, through navigating the listings by scrolling up and down using a remote control or other input device. In IPGs, information on available programming content is downloaded or sent to a user's television equipment, typically a set-top box [STB], and the information is then stored in memory. It should be noted that the parties agreed during trial that the abbreviations IPG and EPG were interchangeable. It was understood that EPG is a broader term that encompasses all types of

electronic program guides and range in functionality – from simple channel selection to advanced web access.

[4] IPTV is the delivery of television content over Internet Protocol [IP] networks. This is in contrast to delivery through traditional terrestrial, satellite, and cable television formats.

[5] The asserted claims of the patents encompass various features such as the ability to manage a digital directory of recordings, view a recording from another device, schedule more than one recording at a time, retrieve on demand media data to improve user experience, and the ability to restart a broadcast program after it has commenced.

[6] For the reasons below, I find that nothing in the asserted claims was new or inventive as of the date the patents were filed and are therefore invalid. The Plaintiffs' actions against the Defendants for infringement of the asserted claims are accordingly dismissed and the Defendants' counterclaims for declarations of invalidity are granted.

II. The Parties

[7] The Plaintiffs/Defendants by Counterclaim are Rovi Guides, Inc. and TiVo Solutions Inc. [TiVo], and other members of its corporate family. In 2020, TiVo merged with Xperi Corporation [Xperi]. For ease of reference, these companies are collectively referred to in the singular as "Rovi."

[8] The Defendant/Plaintiff by Counterclaim in Court Docket No. T-113-18 is Bell Canada [Bell].

[9] The Defendants/Plaintiffs by Counterclaim in Court Docket No. T-206-18 are TELUS Corporation, TELUS Communications Inc., and TELUS Communications Company [collectively "TELUS"].

[10] Both Bell and TELUS (at times referred to as "the Defendants") are Canadian telecommunications companies that offer internet, phone, and television services to Canadians.

[11] In 2010, Bell launched an IPTV service, "Bell Fibe TV" [Fibe TV], to subscribers in Ontario, Quebec, Manitoba, and the Atlantic provinces. Around the same time, TELUS started offering its own IPTV service, "TELUS Optik TV" [Optic TV], to subscribers in Alberta, British Columbia, and Quebec.

III. The Patents

[12] In early 2018, Rovi commenced separate actions against Bell and TELUS asserting the infringement of six of its patents and over 200 claims. Issues relating to the infringement of two patents owned by TiVo were discontinued a few months later.

[13] Rovi seeks relief in respect of the following four patents:

1) Canadian Letters Patent No. 2,336,870 [870 Patent];

2) Canadian Letters Patent No. 2,339,629 [629 Patent];

3) Canadian Letters Patent No. 2,425,482 [482 Patent]; and

4) Canadian Letters Patent No. 2,514,585 [585 Patent].

[Collectively, the "Patents"].

IV. The Asserted Claims

[14] By the time the trial started, the number of claims asserted to be infringed had whittled down from over 200 to the following 20:

i) Claims 346, 456, 721 and 724 of the 870 Patent [870 Claims];

ii) Claims 79, 80, 90, and 91 of the 629 Patent [629 Claims];

iii) Claims 1, 5, 13, 14, 41, 45, 53, and 54 of the 482 Patent [482 Claims]; and

iv) Claims 34, 36, 87, and 127 of the 585 Patent [585 Claims].

[Collectively, the "Asserted Claims"].

[15] The 870 Patent describes IPG systems and methods in which programs and associated program data may be stored on remote or local servers and played back by one or more users. The 870 Claims are divided into two groups. Claim 346 is referred to by the parties as the "870A Claim" and relates to simultaneously transmission and recording of two programs. Claims 456, 721, and 724, the "870C Claims," relate to peer-to-peer transmission.

[16] The 629 Claims relate to an IPG with integrated digital storage that users employ to record programs, maintain program guide data, and display guide data.

[17] The 482 Claims describe systems and methods for caching of on-demand media data in a video-on-demand [VOD] system to reduce latency.

[18] The 585 Claims relate to systems and methods for operator-initiated recording of programs on a remote server, based on retention-criteria, for later viewing by users and then subsequent deletion of those programs.

V. The Relief Requested by the Parties

[19] This action was bifurcated. Quantification issues relating to damages or profits have been put aside until after determination of the liability issues (infringement and validity).

[20] Rovi seeks a declaration that the Asserted Claims are or were valid and infringed by Bell and TELUS until the expiry of the patents. It also seeks a declaration that it is entitled to elect for an accounting of profits. Rovi also requests that Bell and TELUS be enjoined from practicing the subject-matter of the 482 Claims and the 585 Claims until the expiry of the patents.

[21] Bell and TELUS counterclaim that the Asserted Claims are invalid on various grounds and argue in particular nothing in the claims were new or inventive as of the date the Patents were filed. The Defendants request that Rovi's claims be dismissed and that their counterclaims be allowed. They submit that if should I find otherwise, and a damages phase of this litigation

becomes necessary, Rovi should not be entitled to elect an accounting of profits or be entitled to injunctive relief.

VI. Background to the Litigation

[22] A brief review of the evidence established before me is required to understand what led to the present litigation.

[23] Rovi owns a portfolio of thousands of patents in jurisdictions around the world. This includes hundreds of patents in Canada. Rovi supplies digital entertainment technology, including IPG technology, to consumers to help them find programming of interest. It also has an intellectual property licensing business that licenses third-party companies with their own digital entertainment solutions using Rovi's patented technology.

[24] Rovi has invested hundreds of millions of dollars in research and development. Rovi has a long history of innovation and numerous patented features have been incorporated in its products. Rovi licenses its patent portfolios to cable television and IPTV providers worldwide, including in Canada.

[25] In 2012, Rovi first started speaking with Bell about licensing its IPG portfolio of approximately 200 pending and issued Canadian patents. [redacted] Rovi later approached TELUS with the same goal.

[26] [redacted]

[27] When they launched their IPTV services around 2010, Bell and TELUS selected Microsoft's "Mediaroom" software to run their systems. As the manufacturer and vendor of Mediaroom, Microsoft was responsible for dealing with any patent issues relating to its software. Microsoft had patent coverage through a mutual licence with Rovi such that Bell and TELUS were licensed when they launched their IPTV systems.

[28] In or around 2013, Telefonaktiebolaget LM Ericsson [Ericsson] acquired the Mediaroom business from Microsoft. [redacted].

[29] For years Rovi was in discussions with Bell, TELUS, and Ericsson regarding the need for a licence to Rovi's patent portfolio. [redacted]

[30] [redacted]

[redacted]

[31] [redacted]

[32] Over the course of the negotiations, Rovi made no mention of the 482 Patent or the 585 Patent to Bell or TELUS. Nor did it mention the 870 Patent to Bell, and only raised claims of the 629 Patent, which are not asserted at trial. During the same period, Rovi examined the Defendants' IPTV systems and amended the 870 Patent, by adding claims asserted in this litigation.

[33] Ultimately, neither Bell, TELUS nor Ericsson would agree to the portfolio licence that Rovi demanded.

VII. The Trial

[34] The two proceedings were heard together with common evidence. The evidentiary portion of the virtual and electronic trial was completed in 16 days.

[35] The parties filed lengthy and detailed agreed statements of facts. These include a useful recitation of the common general knowledge [CGK] of the person of ordinary skills in the art

[Skilled Person] at the relevant time of the Patents, as well as an agreement on the prior art that was disclosed and made available to the public prior to each patent.

[36] The trial took place shortly after completion of the trial of a patent infringement action brought earlier by Rovi against Videotron Ltd., another Canadian telecommunications company. Judgment was issued in that case on June 23, 2022: *Rovi Guides, Inc v Videotron Ltd*, 2022 FC 874 [*Rovi #1*].

[37] In *Rovi #1*, there were four patents at issue, including the 870 Patent and the 629 Patent. In that case, I concluded that Claims 456, 459, 720 and 721 of the 870 Patent, and Claims 79 and 80 of the 629 Patent were invalid. I will consider these matters anew given that the parties called different technical experts in this case, their opinions and testimonial evidence was not the same, the experts were subject to a different cross-examination strategy by counsel, and the parties' closing submissions were tailored to the evidence adduced at trial.

[38] The trial in *Rovi #1* and the trial in the present case proceeded on substantially the same evidence as it relates to the development of EPGs and IPGs over the years, Rovi's corporate history and licensing business, and certain aspects of the CGK that are not contentious. Rather than repeating this evidence, *Rovi #1* should be read in conjunction with this decision for this evidence only.

[39] Closing submissions were to take place a few weeks after the conclusion of the evidentiary portion of the trial; however, the hearing had to be put over due to my sudden

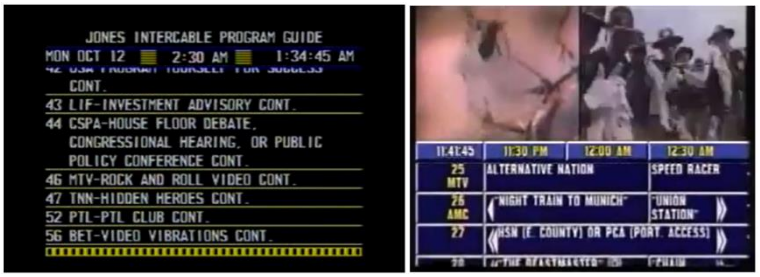
unavailability for medical reasons. I regret the attendant delay in considering the parties' submissions and in issuing these reasons and judgment.

VIII. Introductory Remarks regarding the State of the Art

[40] Before delving into the minutiae of the issues raised in these proceedings, it would be useful to do a succinct review of the state of the art before the priority date of any of the Patents.

[41] Rovi sets out at paragraphs 122 to 127 of its closing submissions its understanding of the television industry in the late 1990s, which it describes as "practically the Stone Age compared to today." The submissions are reproduced below in their entirety with footnotes omitted:

> 122. It is important for the Court to be cautious not to approach the patented inventions from the perspective of technology today, particularly when the priority dates of the 870 and 629 Patents are so far in the past. This risk of hindsight is compounded by the fact that the television technology at issue in the 870 and 629 Patents is ubiquitous; it is in all of our homes.
>
> 123. In the 1980s, the United Video Satellite Group first launched an analog TV Guide known as the "Prevue Channel", which is now understood to be one of the first EPGs. This EPG did not require a STB and was not interactive. It used a scrolling grid in a video channel and was usually available on a fixed channel..
>
> 124. The image below on the left is a primitive broadcast-oriented scrolling EPG from Jones Intercable in Napierville, IL in the late 1980s. The image on the right is the Prevue Guide in the 1990s, which was only marginally more sophisticated, but still had very limited functionality:



125. In the early 1990s, multiple technological developments intersected to result in the advent of digital television and the digital version of the EPG. For example, the use of the MPEG digital video standard over telephone and cable wires began around 1994 and required a device, now known as a STB, to decode the digital MPEG signal.

126. In 1997, the first consumer STB containing an IPG was created. This form of program guide was generated using software on the STB rather than being on a broadcast channel. The earliest versions of the IPG were primitive in comparison to today's technology. These early IPGs allowed a user to scroll down through the channel listing and scroll to the right forward through time. Users could select a current show, press select and tune to that channel directly. Users could also select a show and obtain information. And that was essentially all they could do.

127. By 1998 (the priority dates of the 629 and 870 Patents), available IPGs could only perform very basic functions such as displaying a grid guide and descriptive information, sorting and filtering content, and recording to VCR. The DVR had not been released commercially, and VOD systems were not available, other than in trials.

[42] Rovi would have me believe that IPG technology was at its infancy back in 1998. Nothing can be further from the truth.

[43] The evidence before me establishes that interactive television systems were broadly deployed and IPGs were in use well before 1998. The concepts underlying these systems had been widely known in the computer industry for years.

[44] In 1995, Time Warner was promoting a Full Service Network television trial, which had an IPG that allowed users to watch programs with sophisticated functionality like fast-forward, rewind and pause, and shopping.

[45] Similarly, StarSight, a provider of EPGs in the 1990s, offered an interactive guide that allowed users to set recordings directly from the guide. The Starsight Guide, reproduced below, was an example of an IPG used to record programs with program information in 1997.

[46] In addition, there had been convergence between the computer and television industries. In Florin,[1] a patent published on December 10, 1996 on application of Apple Computer Inc., well before the priority date of any of the Patents, the inventor, Fabrice Florin, describes the state of the industry as follows:

> Over the past 40 years, television and motion pictures have become an important aspect of everyday life for people in the industrialized world. The development of advanced technology in the areas of digital and high definition television (HDTV), video recording systems, laser disks and compact disc (CD) entertainment systems, coupled with satellite, cable television and telephone services, have provided opportunities for viewers to store, retrieve and selectively display a variety of television and audio-visual or interactive programming on home entertainment systems. Over the past decade, improvements in personal computing systems have provided a variety of powerful miniaturized personal computers which permit the storage of data and control of home appliances, such as entertainment systems, through the use of microprocessors. Additionally, a variety of graphic user interfaces have been developed to ease human interaction with these new personal computer systems.

[47] Florin goes on to state: "The marriage of video and television technology with computer interface technology provides consumers with maximum flexibility in storing, retrieving and viewing television and other audio-visual programming."

[48] While the parties quibbled about the pace of convergence between the computer and television industries, there is no dispute that it was known. Incorporating IPGs into an interactive television system to record and manage broadcast television systems were CGK by the mid-

[1] US Patent No 5,583,560 "Method and Apparatus for Audio-Visual Interface for the Selective Display of Listing Information and Display," FC226, Exhibit 55 (Florin)

1990s. Major corporations were actively incorporating these concepts and deploying them into television systems around the world, such as Microsoft, which announced in 1997 that it planned to put an EPG in their operating system.

[49] I am fully cognizant that the success of trials by telecommunication companies ended without much success in deploying digital video systems, that the extent to which EPGs were fully interactive varied considerably, and that digital transmission only started to be adopted among cable television systems in the late 1990s. However, the concepts were so well known that they had become part of an industry-wide standard published by the Digital Audio-Visual Council [DAVIC] in March 1998 — the DAVIC 1.3.1 Specification [DAVIC 1.3.1].

[50] Rovi sought to dismiss DAVIC 1.3.1 as nothing more than a high-level conceptual document that does not provide any specific guidance or teaching. In its words, DAVIC 1.3.1 is a "pin to a pile of Lego" and a document that "covers everything, but says almost nothing." To the contrary, I find that DAVIC 1.3.1 represents a snapshot of the CGK in the field taken immediately before the filing date of any of the patents at issue.

[51] It important to note that DAVIC was not involved in inventing new technology; rather its members came together to discuss and standardize existing technology that was known and in use. DAVIC 1.3.1 provides a full specification that defines the minimum tools and dynamic behaviour needed by digital audio-visual systems for end-to-end interoperability across countries, applications and services. It sets out in detail what people in the industry understood to be the evolving set of features that would be available on television platforms. It also shows how

the Skilled Person can implement systems which would be compliant with DAVIC 1.3.1 and make use of all the toolsets described in 14 parts and over 1,500 pages. The specification document was accepted by the industry as the gold standard.

[52] Rovi claims that companies innovating at the time encountered significant technology limitations because of low memory and limited hard drive capabilities in STBs and that the transition from analog to digital television delivery proved challenging due to bandwidth and frequency limitations. However, no evidence was presented of any technical step or approach that needed to be taken to implement any advance claimed in the Patents that would have been outside the CGK of the Skilled Person.

[53] Finally, none of the Patents identify any technical problem for which the claimed subject matter provides a solution. The reason for this is simple. It was understood that the Skilled Person knew how do it.

IX. The Witnesses

A. *Rovi's Witnesses*

[54] Rovi called three fact witnesses: Mr. Samir Armaly, Mr. Michael Ellis, and Mr. Clay Gaetje.

[55] Mr. Armaly is the President of the intellectual property business at Xperi. He joined Rovi as an employee when it was known as Gemstar-TV Guide [Gemstar] and worked as a patent

attorney on the company's patent portfolio. Over the years, his roles and responsibilities increased. He became the executive vice-president in charge of intellectual property and licensing for Rovi and is now its strategic IP advisor. He provided evidence on Rovi's corporate history, innovation, litigation, and licensing practices. He testified at length about Rovi's efforts over the years to convince Bell, TELUS and Ericsson to enter into a licence arrangement.

[56] Mr. Ellis is a named inventor of each of the Patents. In the mid-1990s, he worked for a variety of Rovi's companies including TV Guide On Screen, Prevue Networks and Gemstar. He spoke about the research and development processes in the early years of Rovi. Through his years at the company, Mr. Ellis' role evolved to include managing various development groups and acting as system architect.

[57] Mr. Gaetje is the Vice-President of intellectual property business development at Xperi. Mr. Gaetje joined Gemstar-TV Guide, a Rovi predecessor company, in 2007. He was with the company until early 2014 as Vice-President of intellectual property licensing. Mr. Gaetje subsequently returned to Rovi in early 2018 as Vice-President of intellectual property business development. He was responsible for negotiating patent licences worldwide with pay television providers and provided a detailed overview of Rovi's product offerings and IP licensing in Canada. Mr. Gaetje was involved in negotiations with Bell, TELUS and Ericsson and prepared slide-show presentations to assist in the discussions.

[58] Rovi called two technical experts. Mr. Timothy Wahlers was the only expert to testify on infringement and validity issues. He has over thirty years of experience in interactive television

platforms, client and cloud-based platforms, VOD, and digital video recorder [DVR] technology. He was qualified to opine on software applications and interfaces for interactive television on STB, personal computer, and web-based platforms; broadcast television, digital video recording, and VOD systems; content management platforms; client and cloud-based platforms; digital rights management; and multimedia systems.

[59] The second technical expert was Mr. Jerry Barth. He conducted testing of the Bell and TELUS systems in relation to the 482 Patent.

[60] Two other experts were called by Rovi to provide evidence relating to the entitlement to remedies: Dr. Coleman Bazelon and Mr. Andrew Harington.

[61] Dr. Bazelon was qualified to provide expert opinion evidence on economics, the valuation of intellectual property, market reconstruction, the calculation of reasonable royalties in patent infringement cases, and damages quantification.

[62] Mr. Harington was qualified to provide expert opinion evidence on investigative and forensic accounting, business valuation, and quantification of financial remedies, including accounting for profits in patent infringement matters.

B. *The Defendants' Witnesses*

[63] Bell and TELUS each called one fact witness. Mr. Andy Basler and Mr. Shawn Omstead provided evidence on TELUS and Bell's business and services respectively.

[64] Two technical experts were called by Bell and TELUS on liability issues.

[65] Mr. Gordon Kerr testified about the validity and infringement of the 629 and 870 Patents. Mr. Kerr is a telecommunications engineer with over twenty years of experience. He worked at British Telecommunications plc. [BT] between the 1980s and mid-1990s. He was involved in developing the first commercial VOD system, the BT "Interactive TV Trial," and the BT "Interactive Multimedia Futures" program. Mr. Kerr was also closely involved from 1995 to 1997 in DAVIC, a non-profit industry body based in Geneva. DAVIC was working at the time on standards for digital audio-visual applications, which culminated in DAVIC 1.3.1 published in 1998.

[66] Dr. David Robinson is a computer software engineer and network architect with over thirty years of experience in delivering multimedia over distributed networks, including the Internet. In the mid-1990s and early 2000s, he was also heavily involved with various standards organizations, including DAVIC. He provided opinions on the 585 and 482 Patents.

[67] Bell and TELUS called one expert on entitlement to remedy. Mr. Christopher Bakewell is an accredited senior appraiser in business valuation and a certified licensing professional. He was qualified to opine on the valuation and appraisal of intellectual property rights and intangible assets, business valuation, licensing, royalty analysis and damages analysis.

X. Rovi's Allegations of Unfair Litigation Tactics by the Defendants

[68] Rovi submits that Bell and TELUS played games throughout the litigation process with respect to the infringement issues. First, it contends that the Defendants deliberately chose to withhold technical information and access to the Fibe TV and Optik TV services from their experts. Instead, they provided assumptions to Mr. Kerr and Dr. Robinson, and then failed to lead evidence to support those assumptions. Second, Rovi criticizes the decision by Bell and TELUS not to call their technical fact witnesses, even though they had advised at least one of their experts that they would be doing so. According to Rovi, the Defendants' litigation strategy has never been about ensuring that this Court hears all relevant evidence so that it can make a fair and informed decision; instead, it has been a continual game of "hiding the ball."

[69] I see no merit to these arguments.

[70] While Rovi may disagree with the manner in which the Defendants instructed their experts and bemoans their decision not to call certain witnesses at trial, the burden of proving infringement on the balance of probabilities rests with the party that alleges it: *Monsanto Canada Inc v Schmeiser*, 2004 SCC 34 at para 29 [*Schmeiser*]. In this case, that party is Rovi.

[71] In most patent infringement cases, once the claim has been construed, it is clear on the facts whether infringement has taken place. Claims construction is a matter of law but whether a defendant's activities fall within the scope of the monopoly thus defined is a question of fact: *Whirlpool Corp v Camco Inc*, 2000 SCC 67 [*Whirlpool*] at para 76.

[72] In the present case, most of the infringement issues in dispute were predicated on construction, and not on the way in which the Defendants' systems operate. Bell and TELUS largely relied on Rovi's evidence to show they did not infringe. It also bears noting the Defendants do not contest infringement of many of the Asserted Claims. Their arguments are primarily focussed on issues relating to the validity of the Asserted Claims.

[73] Bell and TELUS were fully entitled to determine how best to respond to allegations of infringement made against them. It was their decision to determine what assumptions their experts should rely on in rendering their opinions. They had no obligation to lead any evidence when the burden was on Rovi to make its case. Their burden was to prove invalidity of the Asserted Claims on a balance of probabilities.

XI. Credibility Findings (Liability Issues)

[74] Rovi submits that Mr. Wahlers and Mr. Barth's evidence should be preferred to Bell and TELUS' experts, Mr. Kerr and Dr. Robinson.

[75] For their part, Bell and TELUS submit Mr. Wahlers' testimony should be given little to no weight. They say that to the extent there is any conflict between the experts' opinions, the Court should strongly prefer the evidence of Mr. Kerr and Dr. Robinson.

[76] I have set out below the main criticisms levelled by the parties against the witnesses identified above and my general observations as to their credibility and the reliability of their evidence.

A. *Mr. Barth*

[77] Rovi submits that Mr. Barth's evidence should be preferred to that of the Defendants' technical experts; however, there was no conflicting evidence between them. Mr. Barth was not qualified to construe the Asserted Claims or provide an opinion on the infringement or validity of the patents. Instead, Mr. Barth's mandate was to conduct factual testing, and to determine how and when the systems retrieved, stored and displayed data. Mr. Barth provided helpful, consistent, and reliable evidence – so much so that both Mr. Wahlers and Dr. Robinson relied on Mr. Barth's test results to opine on infringement of the 482 Patent.

B. *Mr. Wahlers*

[78] Rovi submits that Mr. Wahlers was an objective and balanced expert, with thirty years of highly relevant experience. It argues that Mr. Wahlers' evidence should be preferred over that of Mr. Kerr and Dr. Robinson due to his greater wealth of relevant experience, his extensive testing of the services at issue, and the reasoned defence of his opinions during cross-examination.

[79] While the Defendants take no issue with the breadth of Mr. Wahlers' experience and knowledge, they say that Mr. Wahlers' testimony should be given little to no weight due to serious credibility problems.

[80] Mr. Wahlers left a favourable impression when he testified with authority and confidence during his examination-in-chief. My view of him changed, however, soon after he was cross-

examined by Defendants' counsel, Mr. Steven Mason. What transpired during his cross-examination was truly remarkable and left his credibility in tatters. Let me explain.

[81] Mr. Mason first asked Mr. Wahlers to confirm that he had prepared the infringement reports dated January 30, 2020, the responding validity reports dated April 3, 2020, and his reply reports, which he did.

[82] Mr. Wahlers agreed that Rovi retained him in late August 2019 and that there was a significant amount of work to be done to prepare his infringement reports. This involved perusing the patents at issue (including the 870 Patent containing 999 claims, which Mr. Wahlers conceded was surprisingly long), developing protocols for infringement testing of the Defendants' products, travelling cross-country to conduct the testing, and construing the dozens of claims originally asserted by Rovi.

[83] Mr. Wahlers further agreed he was pressed for time to prepare four separate validity reports for each patent in suit in response to Mr. Kerr and Dr. Robinson's extensive reports, which referred to approximately 50 pieces of prior art.

[84] Mr. Wahlers acknowledged that two pieces of prior art, Browne[2] and DAVIC 1.3.1, were key for the 870A Claim; that Browne, DAVIC 1.3.1 and Girard[3] were key prior art for claims

---

[2] WIPO Patent No 92/22983, "Large Capacity, Random Access, Multi-Source Recorder Playing" ("Browne").
[3] US Patent No 5,751,282, "System and Method for Calling Video on Demand Using an Electronic Programming Guide" ("Girard").

which are no longer in issue; and that DAVIC 1.3.1 and Hair[4] were key prior art references for the 870C Claims.

[85] Mr. Mason then shared his screen and showed Mr. Wahlers a slide of paragraph 61 of his responding report, dated April 3, 2020, on validity of the 870 Patent. The slide, with passages highlighted, is reproduced below:

61. DAVIC did not provide information about what technology was implemented in the field at the time; it was a "wish-list" of desired functions. DAVIC did not teach the reader how to implement any features, or whether any of the indicated "wish-list" could be put into practice. For example, Mr. Kerr states that "DAVIC 1.3.1 set out robust digital home networking requirements for DAVIC-compliant systems" (Kerr 870 Report, para. 115). First, to the best of my knowledge, I am not aware of any "DAVIC-compliant systems" having been built. Second, DAVIC did not provide "robust" requirements.[13] The sections cited by Mr. Kerr in this paragraph were only "anticipated" functions included in Table 7-1: Functions table. Section 15, cited by Mr. Kerr, is titled "Home Network Functions" and provides nothing more than the statement quoted by Mr. Kerr (the sections cited by Mr. Kerr are indicated with a red box and arrow):

[86] Mr. Mason asked Mr. Wahlers whether the decision to use the words "wish-list" in quotes was a deliberate and specific choice of words. Mr. Wahlers responded "Yes."

[87] Mr. Mason then asked Mr. Wahlers whether he knew someone named Dr. Ravin Balakrishnan. Mr. Wahlers stated that the name "does not ring a bell." Mr. Mason informed Mr. Wahlers that Dr. Balakrishnan was Rovi's expert in a patent infringement case held in this Court a few weeks earlier (*Rovi #1*), and that he had prepared an expert report before Mr. Wahlers

[4] U.S. Patent No. 5,675,734, "System for Transmitting Desired Digital Video or Audio Signals" ("Hair").

prepared his own reports that also addressed the 870 Patent and the 629 Patent, and some of the same prior art, including DAVIC 1.3.1.

[88] Mr. Wahlers was then shown a screenshot of paragraph 61 of his 870 Patent validity report side-by-side with paragraph 53 of Dr. Balakrishnan's validity report, dated January 20, 2020, relating to the same patent.

Responding Expert Report of **Timothy Wahlers** on Validity (Canadian Patent No. 2,336,870) dated **April 3, 2020**, para. 61

61. DAVIC did not provide information about what technology was implemented in the field at the time; it was a "wish-list" of desired functions. DAVIC did not teach the reader how to implement any features, or whether any of the indicated "wish-list" could be put into practice. For example, Mr. Kerr states that "DAVIC 1.3.1 set out robust digital home networking requirements for DAVIC-compliant systems" (Kerr 870 Report, para. 115). First, to the best of my knowledge, I am not aware of any "DAVIC-compliant systems" having been built. Second, DAVIC did not provide "robust" requirements.[13] The sections cited by Mr. Kerr in this paragraph were only "anticipated" functions included in Table 7-1: Functions table. Section 15, cited by Mr. Kerr, is titled "Home Network Functions" and provides nothing more than the statement quoted by Mr. Kerr (the sections cited by Mr. Kerr are indicated with a red box and arrow):

Responding Expert Report of **Dr. Ravin Balakrishnan** on Validity (Dated **January 20, 2020**), para. 53

53. I generally agree with Mr. Sandoval's comments under the headings "Set-Top Boxes" and "The User Interface". I reiterate Mr. Sandoval's comments that the Digital Audio Video Council (also known as DAVIC) was a non-profit organization based in Switzerland. Its aim was to promote the success of interactive digital audio-visual applications and services by disseminating specifications of open interfaces and protocols that maximise operability of multiple systems across geographical boundaries and diverse applications and across multiple services and industries. The DAVIC reference cited in the Sandoval Report proposes functions of systems and desired functionality.[2] DAVIC does not provide information about what technology is currently implemented in the field; it is more of a "wish list" of desired functions. DAVIC does not teach the reader how to implement any features, or if any of the indicated "wish list" may actually be put into practice.

[89] When confronted with the striking similarities of wording in the highlighted portions of the two paragraphs, Mr. Wahlers agreed that they were virtually identical, apart from the tenses of the verbs. It is in that context the following exchange took place:

> Q. It appears that the sentences in your report that are highlighted were copied from Dr. Balakrishnan's report, do you agree?
>
> A. I absolutely do not agree.
>
> Q. It's just a striking coincidence that you used virtually the same words in your report that Dr. Balakrishnan used in his report?
>
> A. My singular focus was on my report. I am not familiar -- never -- I think I've heard of his name. I did not seek out or search for the information on that trial. Have not seen any of it. Was not aware of

> any cross-pollination, even the potential of it. The legal counsel for Rovi never mentioned it. I don't know if -- I can't answer to the fact as to whether he was aware of my comment about it being a wish list, so it certainly is possible. It's a question you would have to ask him as to whether or not –
>
> Q. It's not possible, is it, Mr. Wahlers? It's not possible because you started looking at DAVIC in responding to Mr. Kerr's report, you told us, after January 30th, 2020, and Dr. Balakrishnan signed his report on January the 10th. Sorry, January 20th, 10 days before Mr. Kerr even sent his report.
>
> A. I can't answer as to how or why there's a similarity between the two.
>
> Q. Did you write those words that are highlighted in paragraph 61?
>
> A. Yes.
>
> Q. And it's just a striking coincidence that you used virtually every single one of the same words that Dr. Balakrishnan used?
>
> A. Seemingly they are certainly the same, so I can only answer to the fact that my words are my words.
>
> Q. Okay. Okay. Certainly you would agree that if you did copy something from Dr. Balakrishnan's report, it would be appropriate to attribute that to him and acknowledge that it's his work?
>
> A. Certainly.

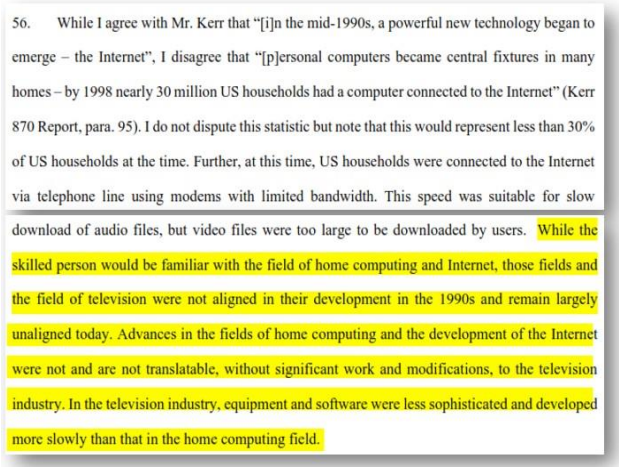
[90] Mr. Wahlers was then shown a screenshot of paragraph 56 of his 870 Patent validity report, reproduced below with highlighted sentences:

56. While I agree with Mr. Kerr that "[i]n the mid-1990s, a powerful new technology began to emerge – the Internet", I disagree that "[p]ersonal computers became central fixtures in many homes – by 1998 nearly 30 million US households had a computer connected to the Internet" (Kerr 870 Report, para. 95). I do not dispute this statistic but note that this would represent less than 30% of US households at the time. Further, at this time, US households were connected to the Internet via telephone line using modems with limited bandwidth. This speed was suitable for slow download of audio files, but video files were too large to be downloaded by users. While the skilled person would be familiar with the field of home computing and Internet, those fields and the field of television were not aligned in their development in the 1990s and remain largely unaligned today. Advances in the fields of home computing and the development of the Internet were not and are not translatable, without significant work and modifications, to the television industry. In the television industry, equipment and software were less sophisticated and developed more slowly than that in the home computing field.

[91] Mr. Wahlers agreed that he was addressing in paragraph 56 of his report, a key issue in this case — the extent to which the fields of television and home computing were aligned. When asked whether he wrote the highlighted passage and whether those were his words, Mr. Wahlers simply responded "Yes."

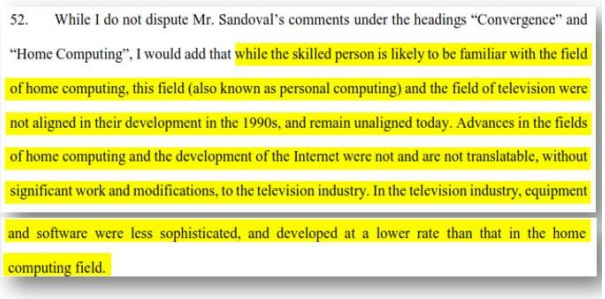
[92] Mr. Wahlers was shown another slide with paragraph 56 of his report and paragraph 52 of Dr. Balakrishnan's validity report dated January 20, 2020, reproduced below.

Responding Expert Report of **Timothy Wahlers** on Validity (Canadian Patent No. 2,336,870) dated **April 3, 2020**, para. 56



56. While I agree with Mr. Kerr that "[i]n the mid-1990s, a powerful new technology began to emerge – the Internet", I disagree that "[p]ersonal computers became central fixtures in many homes – by 1998 nearly 30 million US households had a computer connected to the Internet" (Kerr 870 Report, para. 95). I do not dispute this statistic but note that this would represent less than 30% of US households at the time. Further, at this time, US households were connected to the Internet via telephone line using modems with limited bandwidth. This speed was suitable for slow download of audio files, but video files were too large to be downloaded by users. While the skilled person would be familiar with the field of home computing and Internet, those fields and the field of television were not aligned in their development in the 1990s and remain largely unaligned today. Advances in the fields of home computing and the development of the Internet were not and are not translatable, without significant work and modifications, to the television industry. In the television industry, equipment and software were less sophisticated and developed more slowly than that in the home computing field.

Responding Expert Report of **Dr. Ravin Balakrishnan** on Validity (Dated **January 20, 2020**), para. 52



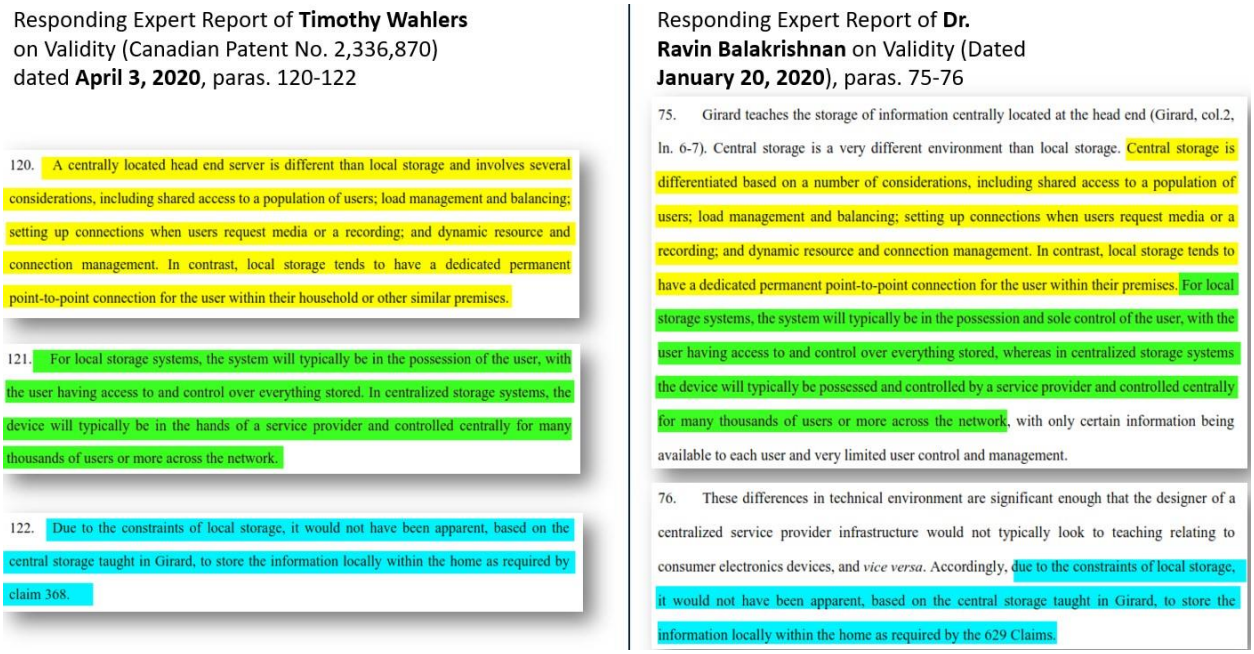
52. While I do not dispute Mr. Sandoval's comments under the headings "Convergence" and "Home Computing", I would add that while the skilled person is likely to be familiar with the field of home computing, this field (also known as personal computing) and the field of television were not aligned in their development in the 1990s, and remain unaligned today. Advances in the fields of home computing and the development of the Internet were not and are not translatable, without significant work and modifications, to the television industry. In the television industry, equipment and software were less sophisticated, and developed at a lower rate than that in the home computing field.

[93] After drawing Mr. Wahlers' attention to the similarities in the two paragraphs, Mr. Mason once again asked him whether he had copied from Dr. Balakrishnan's report. Mr. Wahlers responded as follows:

> A. No, I did not. Again as I stated before, I have not seen his report. This is the first time I've seen any excerpts of it. I saw no, any, or none of the documentation results from the Videotron trial.
>
> Q. Do you have any explanation for how it is that your letters and words that you said you wrote are virtually word-for-word identical to what we find in Dr. Balakrishnan's report, which was written even before you turned your mind to the validity issues in this case?
>
> A. I can only respond to what is in my report, and certainly with some assistance from my -- the legal staff at [the law firm retained by Rovi] in honing the words that occurred in my report but I can categorically state I had no input or read no documents from the other trial at any time to this date.

[94] Over the course of the next hour, Mr. Mason meticulously went through numerous other paragraphs or passages of Mr. Wahlers' reports with him that were identical or virtually identical to those found in Dr. Balakrishnan's report.

[95] At one point, Mr. Wahlers conceded that it was a "remarkable" coincidence that he would have articulated an opinion about the teaching of Girard at paragraphs 120 to 122 of his report using the same four reasons, in the same order, and using virtually the same words as those found at paragraphs 75 and 76 of Dr. Balakrishnan's report. A slide comparing the paragraphs in question is reproduced below:



[96] Mr. Wahlers kept insisting throughout the withering cross-examination that he had never seen Dr. Balakrishnan's report, that he "wrote all of the words" in his reports, and that the words were his.

[97] During re-examination, counsel for Rovi sought to rehabilitate the witness. She asked Mr. Wahlers whether "all of the words in your report reflect your opinions?" Rather than pick up on the implication in counsel's question and admit that he did not write the words but endorsed their substance, Mr. Wahlers doubled down and insisted again that "all the words are my words." He then added:

> …Certainly for the editorial process and the contributions of the Rovi counsel, they were targeted at the audience. Sometimes, as you found, I go a little too deep. So I do appreciate their efforts to help me to line them up, but absolutely every word is my intent, and I read every word and signed off to every word.

[98] On the evidence before me, it is clear that substantial portions of the opinions and conclusions expressed by Dr. Balakrishnan in his validity report of the 870 and 629 Patents have been repeated, almost word for word, in Mr. Wahlers' validity report for the same patents. Given that Dr. Balakrishnan's validity report was served well before Mr. Wahlers began working on his validity report, it is simply not possible, as Mr. Wahlers speculated during his cross-examination, that Dr. Balakrishnan could have copied from Mr. Wahlers' report.

[99] That leaves me with only three possibilities: either (1) Dr. Balakrishnan and Mr. Wahlers independently drafted reports in which thousands of words and dozens of paragraphs just happened to be identical, (2) Mr. Wahlers appropriated portions of Dr. Balakrishnan's report himself without attribution, or (3) someone else took portions of Dr. Balakrishnan's report and put them before Mr. Wahlers to endorse practically verbatim.

[100] The first possibility requires an unimaginable coincidence and should be rejected.

[101] As for the second possibility, the evidence before me would suggest that Mr. Wahlers was not aware that plagiarism had taken place at all. I find that Mr. Wahlers was truthful when he testified that he never met Dr. Balakrishnan and he did not review Dr. Balakrishnan's reports or seek out information from the *Rovi #1* trial. Mr. Wahlers appeared to be genuinely surprised and shocked to learn during his cross-examination that some portions of his report were identical or virtually identical to those found in another expert's report. He was adamant that he did not copy Dr. Balakrishan's report and I accept his evidence on this point. This would explain why his validity report did not include any attribution to Dr. Balakrishnan's work.

[102] However, that is not the end of the matter. I remain troubled by the fact that even after being repeatedly confronted during cross-examination with paragraph after paragraph of another expert's report containing nearly identical words or sentences as in his report, Mr. Wahlers kept insisting that he wrote all of the words. All he could muster when pressed during cross-examination to explain the glaring similarities between the two reports was that he received some editing and wordsmithing assistance from Rovi's counsel. Despite being given ample opportunity to own up to the fact that he was not the original author of the passages in question, Mr. Wahlers failed to do so. Nor would he explain how passages addressing key issues in this case, with such specificity, somehow made their way into his report. This lack of candour goes to the issue of his credibility and the reliability of his evidence.

[103] This brings me to the third possibility – that someone else took passages from Dr. Balakrishnan's report and provided them to Mr. Wahlers to incorporate into his report. This to

me is the most likely scenario, as it appears to be conceded by Rovi at paragraph 59 of its closing submissions:

> 59. The fact that, as a result of counsel's role in wordsmithing and stylistic editing, similar words ended up in both Dr. Balakrishnan and Mr. Wahlers' reports is entirely acceptable…

[104] Rovi submits that collaboration between experts and counsel is permitted by law and should be encouraged. I certainly agree on this point. Without the assistance and guidance of counsel, leaving experts to their own devices would result in "increased delay and cost in a regime already struggling to deliver justice in a timely and efficient manner," as well as other undesirable outcomes such as encouraging the use of "shadow experts" and incentivizing counsel to abandon rather than edit and improve badly drafted reports, causing added cost and delay: *Moore v Getahun*, 2015 ONCA 55 [*Moore*] at para 65. This Court has recognized that counsel may assist in the preparation of an expert report, and that counsel's involvement can even be beneficial in ensuring reports are framed in a way that is comprehensible and relevant: *Guest Tek Interactive Entertainment Ltd v Nomadix, Inc*, 2021 FC 276 at para 29.

[105] However, there are limits to how much consultation is appropriate. Determining those limits is a profoundly contextual matter that depends upon the particular circumstances of the proposed expert, the substance of the proposed evidence, and the particular circumstances of the case: *Simons v Canada (Attorney General)*, 2018 ONSC 3741 at para 56.

[106] Rovi submits that there can be no criticism of counsel assisting an expert witness in the preparation of giving evidence where the assistance goes to form as opposed to the substance of the opinion itself. Once again, I agree on this point.

[107] However, what happened in this case went well beyond collaboration, consultation, wordsmithing or editing. It was word-for-word copying of a technical expert's opinions and conclusions on key issues before this Court, all done without any attribution. It is plagiarism pure and simple. Plagiarism is wrong whether it is intentional or not.

[108] A critical distinction must be drawn between counsel assisting an expert in framing their reports in a way that is comprehensible and responsive to the pertinent legal issues in a case and leading, or be seen to have led, an expert to express a particular opinion. The latter crosses the line of propriety and puts into real doubt the impartiality and independence of the expert: *White Burgess Langille Inman v Abbott and Haliburton Co*, 2015 SCC 23 [*White Burgess*] at paras 26-32. It also brings into question what other "assistance" may have been given to the expert in drafting their report. The expert's opinion "must be independent in the sense that it is the product of the expert's independent judgment, uninfluenced by who has retained him or her or the outcome of the litigation" (*White Burgess* at para 32).

[109] Rovi argues that counsel working with an expert and the process leading to similar words is no different from judges copying and pasting the words of counsel. I disagree. This very argument was rejected in *Cojocaru v British Columbia Women's Hospital and Health Centre*, 2013 SCC 30 [*Cojocaru*]. In that case, the Supreme Court of Canada was faced with an extensive case of copying in the context of judicial reasons. The SCC concluded that "[T]he considerations that require attribution in academic, artistic and scientific spheres do not apply to reasons for judgment" (*Cojocaru* at para 65). In any event, while judges may copy from the briefs of parties in setting out the facts, the legal principles and the arguments, they must still assess all the issues

and arguments comprehensively and impartially. Judges are expected to perform an independent analysis, just like experts are required to do.

[110] The Defendants submit that Mr. Wahlers' willingness to be untruthful under oath means that his evidence should be given no weight. They maintain that there has to be consequences for witnesses who come before the Court that are lacking in candour, particularly in a patent infringement action where expert opinions regarding validity and infringement are paramount. They argue that Mr. Wahlers' willingness to import large swaths of someone else's work – with little revision – demonstrates that he did not approach his task with independence and impartiality as this Court's Code of Conduct for Expert requires. The Defendants further submit that an expert report that contains extensive and unattributed copying of another's work is disqualifying relying on *Anderson v Pieters,* 2016 BCSC 889 [*Anderson*] for this proposition.

[111] In *Abbott Laboratories v Canada (Minister of Health),* 2006 FC 76, aff'd 2009 FCA 94 [*Abbott Laboratories*] at para 19, Associate Judge Martha Milczynski, then called Prothonotary, set out the proper approach to determine whether or not an expert should be disqualified. In that case, the plaintiff expressed concern that a proposed expert of one of the defendants had received some confidential information of the plaintiff, thereby placing the expert in a potential conflict of interest. Prothonotary Milczynski stated that there must be an objective review of the facts and circumstances in each case and listed various factors to be analyzed in conducting the review. For the purpose of the present case, the following factors are relevant:

- whether the expert knew he or she was relying on plagiarized information;

- the nature of the plagiarized information;

- the risk of prejudice arising to either the party challenging the expert or to the party seeking to retain the challenged expert; and

- the interests of justice and public confidence in the judicial process.

[112] After balancing all of the above factors, I conclude that Mr. Wahlers should not be disqualified as a witness. The circumstances in the present case are different than those in *Anderson*. In *Anderson*, the expert report prepared by a family physician was found to be plagiarized and the physician was found to have lied about it. The judge also concluded that the expert was biased, unqualified and not independent. The primary reason the expert was disqualified was because he did not have the appropriate expertise, which is not the case here.

[113] While the second factor identified above militates in favour of disqualification, I find there would be a severe prejudice to Rovi to disqualify its only technical expert, one that far outweighs any prejudice to the Defendants.

[114] It remains that Mr. Wahlers lack of candour and his apparent indiscriminate adoption of another expert's opinions or conclusions, albeit unknowingly, raise serious concerns in my mind as to whether Mr. Wahlers has fulfilled his duty to the Court to provide an independent opinion. The problem is compounded by the fact that, contrary to what is asserted by Rovi, Mr. Wahlers was unable to defend many of his opinions at trial.

[115] By way of example, in his 629 Patent validity report, Mr. Wahlers claims that Florin does not describe an EPG because it uses the term “user interface” rather than “EPG” and criticizes Florin because it does not disclose an EPG that “receives program information about upcoming programs, and allows the user to navigate through that program information and make decisions about what to watch and/or record.” On cross-examination, Mr. Wahlers conceded this point entirely.

[116] The most glaring example is Mr. Wahlers’ dismissive and myopic treatment of DAVIC 1.3.1. Rather than approach the assessment of this important piece of prior art from the perspective of the Skilled Person with a mind willing to understand, he parroted the words of Dr. Balakrishnan that DAVIC 1.3.1 is a “wish-list” of desired functions. As I stated earlier, that is simply not the case.

[117] The Federal Court of Appeal recently reiterated that the teachings of the prior art are to be read as a skilled person would understand them: *Western Oilfield Equipment Rentals Ltd et al v MILLC*, 2021 FCA 24 at para 86 [*Western Oilfield*].

[118] Despite my strong reservations as to Mr. Wahlers’ credibility, independence and impartiality, it would not be just to reject his reports or testimony out of hand. There are, after all, some aspects of his evidence that are not controversial and prove useful and reliable. The concerns raised by the Defendants go to weight to be given to Mr. Wahlers’ evidence, rather than to its admissibility. Just to be clear, I have looked upon Mr. Wahlers’ evidence with great skepticism.

C. *Mr. Gordon Kerr*

[119] Rovi attacks Mr. Kerr's credibility and the reliability of his evidence on numerous grounds.

[120] First, Rovi questions how Mr. Kerr could purport to give an opinion on infringement when he was totally unfamiliar with IPTV systems, was "denied access" to the Bell and TELUS services via Slingbox, and told he need not speak to technical staff. The simple answer is that Mr. Kerr was called to give opinions on the 629 Patent and the 870 Patent, which have nothing to do with IPTV. There is no dispute that Mr. Kerr is an expert in the field of these two patents.

[121] It is important to note that the Defendants do not dispute the asserted claims of the 629 Patent and the 870 Patent, other than Claim 346, would be infringed in the event the patents were held to be valid. Mr. Kerr did not give any infringement opinions on the 629 Patent, and only touched on one asserted claim of the 870 Patent — Claim 346.

[122] Mr. Kerr opined that Claim 346 requires a "tuner," which the Skilled Person understands to be an analog or digital device that can select a specific frequency band, and therefore, a specific television channel. The experts agreed that there is no piece of equipment in the Defendants' IPTV systems called a tuner. The only non-infringement opinion Mr. Kerr gave with respect to Claim 346 is that there is no tuner in the Fibe TV system, because the tuner described in the 870A Claim is a piece of hardware. The issue on infringement was predicated on construction, and not on the way in which an IPTV system operates. In the circumstances, it

understandable why the Defendants felt it was unnecessary for Mr. Kerr to have access to their services to provide his opinion.

[123] Second, Rovi claims Mr. Kerr did not follow the basic obligations of an expert in a patent case when he reviewed the prior art provided to him by counsel before arriving at his claims construction. Rovi submits that: "[h]aving reviewed the prior art with an eye to either infringement or validity of the patent, Mr. Kerr could not have construed the claims purposively and independent of the issues of validity, as required by the law." In my view, this is a completely unfair criticism.

[124] Claims must be construed purposively, once and for all purposes, before and independent of considerations of the issues of infringement or validity: *Whirlpool* at paras 43, 49(a); *Free World Trust c Électro Santé Inc*, 2000 SCC 66 [*Free World Trust*] at para 19. Mr. Kerr testified in examination-in-chief he understood he was to construe the claims without consideration of validity or infringement. He also confirmed in cross-examination that he understood it was his obligation to construe the claims without having regard to the prior art. However, it was never put to Mr. Kerr on cross-examination that he reviewed the prior art with an eye to either infringement or validity of a patent. It is therefore unfair to suggest that Mr. Kerr failed to comply with the instructions set out in *Whirlpool* and *Free World Trust*.

[125] Third, Rovi claims that Mr. Kerr's demeanor during cross-examination was not that of an impartial expert witness and he was defensive and evasive throughout. I disagree. I found Mr. Kerr to be a candid, thoughtful and careful witness, one who wanted to be sure he understood the

questions before answering them. While he may have been somewhat pedantic at times, he was neither evasive nor reluctant to answer any questions posed to him in a clear manner.

[126] Finally, Rovi submits that Mr. Kerr's opinions on obviousness should be viewed as unreliable because of his inability to approach the task from the perspective of the uninventive Skilled Person. According to Rovi, because Mr. Kerr's entire experience and role at BT was to innovate and think about the future, he wouldn't be aware if he was approaching a question as a paragon of deduction and dexterity wholly devoid of intuition, a triumph of the left hemisphere over the right, because he has only ever worked in an inventive capacity. While Rovi is not suggesting that an expert who has innovated in their field could never provide an expert opinion from the perspective of the Skilled Person, it claims that given Mr. Kerr's particular experience, he cannot put himself into the shoes of the non-inventive skilled person: *Apotex Inc v H Lundbeck A/S*, 2013 FC 192 [*H Lundbeck*] at paras 118, 122. In my view, this is pure speculation on Rovi's part and inconsistent with the evidence before me.

[127] Mr. Kerr testified that as a professional, he was able to follow the guidance given to him by Defendants' counsel and felt he was able to give the Court evidence from the perspective of the Skilled Person. I have no hesitation in accepting his evidence on this point. I should add that it does not matter whether or not the expert approximates to the Skilled Person. As stated by Mr. Justice George Locke, then of this Court, in *Shire Canada Inc v Apotex Inc*, 2016 FC 382, what matters is "the substance of each expert's opinion and the reasoning that led to that opinion" (*Shire Canada Inc* at para 48).

[128] I found Mr. Kerr to be a very knowledgeable witness who could explain complex concepts clearly. His opinions and testimony were thorough, persuasive and largely unshaken on cross-examination. He proved to be an extremely helpful witness.

D. *Dr. David Robinson*

[129] Rovi submits that Mr. Wahlers' evidence should be preferred over that of Dr. Robinson for numerous reasons.

[130] Rovi claims that the Defendants provided assumptions to Dr. Robinson and then failed to lead evidence to support the assumptions.

[131] It criticizes Dr. Robinson's deportment during his cross-examination and contends that he was evasive in answering questions and adopted unreasonable positions.

[132] Rovi claims that in addition to being evasive in his evidence, Dr. Robinson was unfamiliar with the contents of his own expert reports. It says that the most glaring example of this was Dr. Robinson's contradictory evidence regarding anticipation of Claim 34 of the 585 Patent by iMagic.[5]

[5] Canadian Patent No 2,321,462, "Digital Interactive Delivery System for TV/Multimedia/ Internet with On-Demand Applications" [iMagic]

[133] Rovi cites other examples where Dr. Robinson alleges to have refused to provide a yes or no answer to straightforward questions that warranted such an answer.

[134] I find these criticisms to be without merit.

[135] I can certainly understand why Rovi considered Dr. Robinson to be a difficult witness. He was often hard to pin down and Rovi's counsel was not able to move him from his strongly held positions. Dr. Robinson was also reluctant to answer questions affirmatively and fully without first knowing where counsel intended to go with their line of questioning. However, this is understandable given the volume of information, with all of its subtleties, that Dr. Robinson had to plow through and the fact that Rovi's counsel often posed confusing questions or repeated the same questions in any attempt to get a different response.

[136] Contrary to Rovi's assertions, Dr. Robinson's opinions were well supported by the evidence, including data and facts collected by Mr. Barth. While Dr. Robinson's answers may have been longwinded and convoluted at times, I am satisfied that he was trying his best to assist the Court.

[137] Overall, while there may have been some frailties in Dr. Robinson's evidence, I have considered them in assessing the weight to give to it. It remains that most of his key opinions went entirely unchallenged.

[138] I see no reason to question Dr. Robinson's credibility or impartiality. Ironically, Rovi had no difficulty citing Dr. Robinson's evidence when it suited its purposes.

[139] Overall, I considered Dr. Robinson to be an extremely knowledgeable and helpful witness. His evidence was persuasive, consistent and objective — exactly what one would reasonably expect of an independent expert.

E. *Conclusion*

[140] For the above reasons, I gave significantly more weight to the opinions and conclusions of Mr. Kerr and Dr. Robinson when they conflicted with those of Mr. Wahlers.

XII. The Issues

[141] The issues to be determined were substantially narrowed by the parties after the conclusion of the evidentiary portion of the trial.

[142] Rovi alleges that all of the Asserted Claims are infringed. The Defendants concede infringement, except for Claim 34 of the 585 Patent, the 870A Claim and all of the 482 Claims.

[143] Therefore, the issues to be determined are as follows:

1. The 870 Patent

a. Is the 870A Claim anticipated by Browne or obvious in light of Browne, the CGK and DAVIC 1.3.1?;

b. Are the inventive concept/subject matter of the 870A Claim and the 870C Claims obvious in view of the CGK, DAVIC 1.3.1 and Hair?;

c. Are all of the asserted claims broader than the invention made by the inventors?;

d. If not, is the Claim 346 infringed?

2. The 629 Patent

a. Are the asserted claims invalid as anticipated by Florin?;

b. Are the asserted claims obvious in light of Florin, the CGK, Browne and DAVIC 1.3.1?

3. The 585 Patent

a. Are the asserted claims anticipated by iMagic?;

b. Are the asserted claims obvious in light of the CGK alone and one or more of several prior art references, including iMagic, Minerva[6], DAVIC 1.3.1 and the Microsoft Patent?[7];

---

[6] WIPO Patent No. WO 01/93588, "Method and System for Recording Scheduled Programs Without Local Recording Equipment" [Minerva]

[7] U.S. Patent No. 5,751,282 "System and method for calling video on demand using an electronic programming guide" [Microsoft]

c. Is Claim 34 of the 585 Patent infringed?

4. The 482 Patent

a. Are the asserted claims anticipated by Rosin?[8];

b. Are the asserted claims obvious based on the CGK alone, or the CGK in light of the state of the art that included Aristides,[9] LaJoie,[10] and O'Robarts?[11];

c. In the alternative, are the asserted claims overbroad?;

d. If not, are the 482 Claims infringed?

5. Remedies

a. Is Rovi is entitled to elect an accounting of profits?;

b. Should injunctive relief be granted for the 585 Patent?

[144] The issue of costs was reserved at the request of the parties. They will be addressed by way of written submissions after issuance of this Judgment.

---

[8] US Patent No 6,028,600, "Rotary Menu Wheel Interface" [Rosin**]**
[9] US Patent No 5,657,072, "Interactive Entertainment Network System and Method for Providing Program Listings During Non-Peak Times" [Aristides]
[10] US Patent No 5,850,218, "Inter-active Program Guide with Default Selection Control" [LaJoie**]**
[11] UK Patent No 2,325,537, "An Electronic Television Programme Guide" [O'Robarts]

XIII. The Law

[145] The law of claim construction, anticipation, obviousness, sufficient disclosure, overbreath and infringement is well-settled and stated in detail in *Rovi #1*. For the sake of brevity, I have reproduced below only those portions of the law set out in the parties' written submissions that I consider relevant to the issues at hand.

A. *Claim Construction*

[146] Claims must be construed purposively, once and for all purposes, before and independent of considerations of the issues of infringement or validity: *Whirlpool* at paras 43, 49(a); *Free World Trust* at para 19. Claims must be construed as of the publication date of the patent at issue. The key to purposive construction is the identification of the particular words or phrases in the claims that describe what the inventor considered to be the "essential" elements of the invention.

[147] As set out in *Tearlab Corporation v I-MED Pharma Inc*, 2019 FCA 179 at paras 30-33, the principles of claims construction include:

> (a) A patent is to be construed through the eyes and with the common knowledge of a worker of ordinary skill in the field to which the patent relates;
>
> (b) Claims should be read with a mind willing to understand; and
>
> (c) Claims are to be construed in light of the whole specification, but plain language in the claims is not to be expanded or restricted by references in the disclosure. Recourse to the disclosure is: (i) permissible to assist in understanding the terms used in the claims; (ii) unnecessary where the words are plain and unambiguous; and (iii) improper to vary the scope or ambit of the claims.

B. *Anticipation*

[148] A patent claim is invalid if it is anticipated, meaning that it lacked novelty as of the priority date. One cannot patent subject matter that is already in the public domain. This requirement is set out in s 28.2(1)(a) and (b) of the *Patent Act.*

[149] A claim is anticipated if: (1) the essential elements of the claim are disclosed in a single instance (such as a publication), and (2) that disclosure was enabling, meaning that a Skilled Person could produce the invention using that disclosure without any inventive skill: *Sanofi-Synthelabo Canada Inc v Apotex Inc,* 2008 SCC 61 at paras 31-37 [*Sanofi-Synthelabo*]; *Free World Trust* at para 26).

[150] For disclosure, the prior art must disclose subject matter which, if performed, would necessarily result in infringement of that patent. For enablement, the Skilled Person must have been able to perform the claimed invention without undue burden, not the prior art: *Sanofi-Synthelabo* at para 27. If an inventive step were required to get to the invention of the patent, the prior publication would not be enabling. The Skilled Person may use the CGK during the enablement portion of the test.

C. *Obviousness*

[151] A claim in a patent is invalid if it was obvious as of the claim date (the priority date in this case). The requirement is set out by s 28.3 of the *Patent Act*. In *Sanofi-Synthelabo* at para 67, the Supreme Court of Canada set out the four part test for obviousness as follows:

a) Identify the notional Skilled Person and the relevant CGK of that person;

b) Identify the inventive concept of the claim, or if that cannot readily be done, construe it;

c) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed; and

d) If the differences constitute steps which would have been obvious to the Skilled Person, the claim is obvious and invalid.

[152] Insofar as the state of the prior art is concerned, the Federal Court of Appeal stated in *Mylan Pharmaceuticals ULC v Eli Lilly Canada Inc,* 2016 FCA 119 at para 23 that "[p]rior art is the collection of learning in the field of the patent at issue. It comprises any publically available teaching, however obscure or not generally accepted."

[153] If there is no difference between the inventive concept and the state of the art, then the claim will be obvious (*Bristol-Myers Squibb Canada Co v Teva Canada Ltd*, 2017 FCA 76 at para 65). If there are differences, but those differences do not require any degree of inventiveness, then the claim will also be obvious. The Skilled Person can rely on their CGK to determine if the bridge between the state of the art and inventive concept was obvious.

[154] The CGK is the technical background of the Skilled Person against which the prior art must be considered: *Angelcare Canada Inc v Munchkin Inc*, 2022 FC 507 at para 88, citing

Laddie J in *Raychem Corporation's Patents*, [1998] RPC 31 at 40. As stated by Mr. Justice Michael Manson in *Biogen Canada Inc v Taro Pharmaceuticals Inc*, 2020 FC 621 at para 170, "the prior art should be approached by a motivated [Skilled Person] with a mind willing to understand, not one myopically focussed on seeking out failure."

D. *Overbreadth*

[155] If a patent claims more than what was invented or disclosed, it is invalid for being overly broad: *Pfizer Canada Inc v Canada (Minister of Health),* 2007 FCA 209 at para 115 [*Pfizer 2007*]. A claim in a patent is invalid for being overbroad if it is either: (1) broader than the invention disclosed in the patent; or (2) broader than the invention actually made by the inventors: *Pfizer Canada Inc v Canada (Minister of Health),* 2008 FC 11 at para 46 [*Pfizer 2008*].

[156] In assessing whether the claim is broader than the invention made, courts look to evidence from the inventor regarding what was actually made: *Apotex Inc v Wellcome Foundation Ltd,* 1998 CarswellNat 458 (FCTD) at paras 267-270, 294-303, rev'd in part 2000 CarswellNat 2643 (FCA), aff'd 2002 SCC 77.

[157] In assessing whether the claim is broader than the invention disclosed in the patent, the Court asks whether any of the claims lack an essential element in the patent specification.

E. *Infringement*

[158] Infringement is defined broadly as any activity that deprives the patentee, in whole or in part, directly or indirectly, of full enjoyment of the monopoly conferred on them by law (*Schmeiser* at paras 33-34). This monopoly is the exclusive right, privilege, and liberty of making, constructing, and using the invention, and selling it to others to be used (*Patent Act*, s 42).

[159] Once the essential elements of the patented invention have been established, determining whether there is an infringement is an exercise in comparing the allegedly infringing item and the patented invention (*Schmeiser* at para 30). If the accused item includes all of the essential elements of a particular claim, then infringement is established (*Eli Lilly & Co v Apotex Inc*, 2009 FC 991 at para 211 [*Eli Lilly & Co*]). A claim is only infringed if the subject matter of the infringing product falls within the claims as construed.

[160] Having a larger and more complex system than the systems claimed in the patents does not render a system immune to infringement: *Bessette v Quebec (Attorney General)*, 2019 FC 393 at paras 279-281.

XIV. The Skilled Person

[161] Defining the Skilled Person is the first step for the Court and is foundational to construction, infringement and validity issues. Patents must be construed from the perspective of the Skilled Person to whom the patent is addressed: *Whirlpool* at para 53.

[162] The law on the Skilled Person is settled. The Skilled Person is a hypothetical individual or team possessing the level of skill and knowledge that would allow them to understand the subject matter taught by the patent and to put it into practice. The Skilled Person has "no scintilla of inventiveness or imagination; a paragon of deduction and dexterity, wholly devoid of intuition; a triumph of the left hemisphere over the right" (*Beloit Canada Ltd et al v Valmet OY* (1986), 8 CPR (3d) 289 (FCA) at para 17). They possess an ordinary level of competence and knowledge incidental to the field to which the patent relates. The Skilled Person "never misses the obvious nor stumbles on the inventive." (*H Lundbeck* at para 83, citing *Lilly Icos LLC v Pfizer Ltd*, [2000] EWHC Patents 49 at para 62).

[163] The experts agree that the four Patents are addressed to the same Skilled Person.

[164] Mr. Wahlers defined the Skilled Person to whom all four patents is addressed as a team of engineers and/or computer scientists working in the areas of electronic content delivery, electronic program guides, television video signal processing, graphical user interfaces, cable or satellite television systems and content distribution, STBs, and multimedia systems. The Skilled Person would have a bachelor's degree in engineering, computer science, or applied mathematics, as well as two or more years of experience in some or all of the areas identified above.

[165] Neither Mr. Kerr nor Dr. Robinson had any specific points of disagreement with Mr. Wahlers' opinion relating to the credentials of the Skilled Person. I adopt Mr. Wahlers' definition as I consider it comprehensive and correct.

XV. Common General Knowledge [CGK]

[166] The second issue the Court must decide is how to define the CGK of the Skilled Person. CGK means knowledge generally known by persons skilled in the relevant art at the relevant time. This knowledge undergoes continuous evolution and growth (*Whirlpool* at para 74).

[167] The CGK distinguishes the body of information that is widely recognised from that which is simply publicly available. Individual disclosures may become CGK, but only when they are generally known and regarded as a good basis for further action (*Eli Lilly & Co* at para 97). At the same time, some information that forms part of the CGK may not have been written down at all (*Janssen-Ortho Inc v Novopharm Ltd*, 2006 FC 1234 at para 113 [*Novopharm*]).

[168] The parties submitted agreed statements of fact setting out what was part of the CGK of the Skilled Person in 1998, 2000 and 2003. The CGK prior to the filing date of any of the patents includes:

a) A television system typically includes a headend (a central location run by the operator, which collects multimedia from content providers and processes it for distribution), and customer premises equipment (such as a television sometimes with a STB, which receives the television content and displays it to the user).

b) EPGs and their provision to and storage of information of television program data by an STB.

c) The STB could be controlled by the user by way of a remote control.

d) Up to the mid-1990s, most television content was transmitted to users in analog format.

e) The development and widespread adoption of digital transmission, compression and storage techniques in the mid-1990s changed the ability to provide a richer interactive television experience to users.

f) The Internet digitally connected users across the globe, allowing them to exchange messages, play games, and view various types of multimedia (including pictures, music, and video).

g) In March 1998, DAVIC released version 1.3.1 of its specification, which consists of 14 parts.

[169] This is by no means a complete listing of the CGK. Rather than reciting it at length in these reasons, I hereby adopt the CGK which I consider to be fairly laid out in the validity reports of the Defendants' experts. In my analysis of the validity issues, I will focus on the elements of the Asserted Claims that are said to be CGK by the Defendants, which are not accepted by Rovi.

[170] There is no dispute between the parties' experts that the elements of the Asserted Claims discussed below are essential. Only the elements that there remains a construction debate will be analysed in depth in these reasons. The focus is on the claims where the proverbial "shoe pinches" (*Bayer Inc v Apotex Inc*, 2014 FC 436 at paras 46-47).

XVI. The 870 Patent

[171] The 870 Patent is 346 pages long and has 999 claims. It was filed on July 13, 1999 and claims priority to U.S. Application No. 60/092,807, filed on July 14, 1998 [the "807 Application"], and to U.S. Application No. 09/332,244 filed on June 11, 1999. It is generally directed to an IPG system that allows users to record programs and program data to a local or remote server.

[172] The 870 Patent was laid open to public inspection on January 27, 2000, issued to patent on January 3, 2017, and expired on July 13, 2019. Nearly 15 years after the filing date and four years after Bell and TELUS launched their services, it was amended to add the 870 Claims. The significance of these amendments will become apparent when dealing with the Defendants' argument that the 870 Claims are broader than the invention made by the inventors.

[173] Rovi initially asserted infringement of 124 claims of the 870 Patent against Bell and 96 claims against TELUS. At trial, only four claims, the 870A Claim and the 870C Claims, were alleged to be infringed by the Defendants.

[174] I will first address infringement and validity issues relating specifically to the 870A Claim before turning to the validity attacks against the 870C Claims. I will then address the Defendants' overbreadth arguments that apply to the 870 Claims as a whole.

A. *The 870A Claim*

[175] The 870A Claim describes an IPG recording two programs simultaneously and reads as follows:

> 346. A method for using an interactive television program guide to record programs, the method comprising:
>
> receiving a first user selection made using an interactive television program guide to record a first television program on a random access digital storage device;
>
> directing a first tuner to tune to a channel corresponding to the first television program in response to receiving the first user selection;
>
> recording the output of the first tuner to the random access digital storage device;
>
> receiving a second user selection made using the interactive television program guide to record a second television program on the random access digital storage device, wherein the broadcast time of the second television program overlaps at least partially with the broadcast time of the first television program;
>
> directing a second tuner to tune to a channel corresponding to the second television program in response to receiving the second user selection; and
>
> simultaneously recording the output of the second tuner along with the output of the first tuner to the random access digital storage device.

1. Claim construction – 870A Claim

[176] The sole claim construction dispute between the parties arising from the 870 Patent centers on the meaning of the terms “tune” and “tuner” in the 870A Claim.

[177] Mr. Wahlers provided the opinion that “tune” and “tuner” are not limited to describing traditional cable systems, and that the Skilled Person would have used the terms “tune” and

"tuning" in the context of IPTV deployments. Mr. Wahlers argued that a tuner "encompasses any hardware and software to enable selection of a particular channel."

[178] In contrast, while Mr. Kerr agreed that "tuning" (the verb) is colloquially used to describe accessing a channel by joining a multicast stream, he opined that the Skilled Person would understand that a tuner (the noun) is a specific piece of hardware that functions to filter out a specific channel from among many channels.

[179] In his validity report, Mr. Kerr observed that television content is often delivered to users by the signal being modulated and transmitted over a medium, such as a coaxial cable. The television programs are typically broadcast to the user within a number of "channels," which are frequency bands of a specific bandwidth. A "tuner" is a device that can select a specific frequency band, and therefore, a specific television channel. This evidence was not challenged.

[180] Rovi submits that Mr. Wahlers' opinion should be preferred because it is supported by: (i) Bell and TELUS' own descriptions of their IPTV systems; (ii) Mr. Kerr's evidence that "technical people" use the term tune when discussing IPTV systems; and (iii) Dr. Robinson's evidence on IPTV systems, which was far more candid that Mr. Kerr's. I disagree.

[181] There is no dispute that "tune" and "tuning" are terms used in the context of IPTV systems. Mr. Kerr conceded in cross-examination that technical people use "colloquial" terms like "channel" and "tune" in the IPTV context. These terms have also been used in documents describing the Fibe TV and Optik TV services, including in Bell's marketing material to

consumers. Moreover, tune is a commonly used term to describe accessing a live broadcast television program in the Defendants' IPTV systems built on Mediaroom software provided by Ericsson.

[182] I note that the term "tuner" appears in the Ericsson document titled "Set-Top Box Client, Ericsson Mediaroom for Set-Top Box Client 3.3 GA," however, no evidence was adduced to explain what this term, in the context of the document, would be understood to be by the Skilled Person. During his cross-examination, Mr. Kerr was shown the document, which he was seeing for the first time, and asked to comment. He volunteered that the Ericsson document is an "operational document" focused on "set[ting] up the set-top box" rather than a "technical treatise on how the system was built." From his perspective, the references to "tuner" mostly entailed coding abbreviations.

[183] To be clear, all the experts, including Dr. Robinson, agreed that "tuning" is colloquially used to describe accessing a television program. However, the crux of the issue before me is not what is meant generally by tuning, but rather what the Skilled Person would understand by the term "tuner" (noun), which Rovi concedes is an essential element of the 870A Claim, juxtaposed to the verb "to tune."

[184] Rovi claims that Dr. Robinson's evidence supports Mr. Walhers' opinion. However, I note that Dr. Robinson was never squarely asked what the term "tuner" would mean to the Skilled Person reading the 870 Patent. In cross-examination, Dr. Robinson was simply asked whether "tuning" is a term that the Skilled Person would know and understand in or around the

year 2000. Dr. Robinson responded that a person, particularly with an electronics background, would know what tuning meant "in the sense of an LC circuit."

[185] Rovi's counsel put to Dr. Robinson that the Skilled Person would also understand what the word "tuning" means in relation to an IPTV system. Dr. Robinson answered: "Colloquially, yes." Rovi's counsel then asked Dr. Robinson to turn to the section in his validity report for the 585 Patent where he provided his construction of Claim 34 of the 585 Patent and, more specifically, the element "tuning the first user device to the first broadcast program at a tune-time, wherein the tune-time is after the scheduled start-time of the first broadcast program." Dr. Robinson provided in his report the Skilled Person's understanding as follows:

> The concept of "tuning" or a "tune-time" relates to technology originating with cable and other broadcast technologies. However, in the context of IPTV, "tuning" includes selecting a program via an EPG with a user device (e.g. set-top box). The selection takes place after the scheduled start time for the program at a time when the program has already begun.

[186] It is in that context that the following exchange took place.

> Q. And you construe the term to include:
>
> "In the context of IPTV, tuning includes selecting a program via an EPG with a user device."
>
> That's your construction of that term?
>
> A. That is in an IPTV context, people colloquially use the term "tuning" to select a program from an EPG. In the old days when they would have actually used, they would have explicitly tuned to using to a particular RF frequency.
>
> Q. You understand, sir, that your construction of the claim is meant to provide how the skilled person would read this language at the relevant date?

> A. And within the context of somebody working on IPTV, a skilled person would probably use tuning in the same way as I've documented there.
>
> Q. And they would use it to mean selecting a program via an EPG?
>
> A. That is correct.

[187] Rovi submits that while Dr. Robinson provided evidence from the perspective of the Skilled Person in 2000 (the relevant date for the 585 Patent) rather than 1998 (the relevant date for the 870 Patent), "there is no difference in how the Skilled Person would have construed these terms at these two dates." Notably, Rovi avoids identifying "these terms."

[188] Claim 34 of the 585 Patent does not use the term "tuner," but rather "user device," an important distinction. All I can take from Dr. Robinson's evidence is that the terms "tune" and "tuning" are colloquially used in the context of IPTV deployments, which Mr. Kerr had conceded from the start.

[189] Turning back to the 870A Claim, it requires the ability to direct a "tuner" to tune. The 870 Patent disclosure states that "any suitable combination of analog and digital tuners and decoders are hereinafter referred to as tuners." It provides an example of "direct[ing] one or more tuners to particular channels at particular times."

> Any suitable combination of analog and digital tuners and decoders are hereinafter referred to as tuners to simplify the discussion. Recorder 125 may direct the one or more tuners to particular channels (analog or digital) at particular times based on entries in job queue 120. In this example, recorder 125 may direct a first tuner to tune to channel 4 on December 21, 1999 to record PROGRAM 1 for user 1. Recorder 125 may also direct a second tuner to tune to channel 5 at the same time to record PROGRAM 2 for user 1 and user 2. The upper limit on the number of tuners

> needed for remote media server 24 may be the number of channels distributed by distribution equipment 21. Such tuners may be based on tuning and decoding circuitry implemented using one or more integrated circuits.

[190] This is entirely consistent with Mr. Kerr's construction. Mr. Kerr states that the Skilled Person would understand a tuner to be an analog or digital device that can select a specific frequency band, and therefore, a specific television channel. He explains that the tuner effectively acts as a filter to output only the selected channel. Mr. Kerr further states "the purpose of a "tuner" is to select a specific channel being received on a multi-channel medium." According to Mr. Kerr, while tuners were (and are) used in cable television systems, there is no "tuner" or anything equivalent to a "tuner" in an IPTV system. He agrees that changing channels in a television system is often colloquially referred to as "tuning," (regardless of the specific transmission protocol used in a television system), but notes that the 870A Claim specifically requires a tuner. In his opinion, "a tuner is not required, is not present, and indeed, is incompatible with, the channel-change methodology of an IPTV system such as that of Bell or TELUS."

[191] In his responding validity report, Mr. Wahlers agreed with Mr. Kerr that tuning to a channel in an IPTV system involves joining a multicast stream, but disagreed that a tuner is not present in an IPTV system. Instead of pointing to a hardware or software that would be considered a tuner in an IPTV system, Mr. Wahlers focused on the function of tuning stating that "[a]lthough the underlying networking technology used to tune to a channel in a broadcast system may be different than in an IPTV system, the act of tuning still remains an essential part of an IPTV system and is referred to in the same way."

[192] Mr. Wahlers could not point to any hardware or software that could considered to be a "tuner" in an IPTV system, focusing instead on the functionality of tuning. In his examination-in-chief, he suggested that a "tuner" is "a modem of sorts" and is "equivalent with tuning." In cross-examination, Mr. Wahlers conceded that "there isn't a chip in an architecture diagram in an IPTV system that has the word tuner on it." Mr. Wahlers over and over again focused on the functionality of tuning rather than addressing the elephant in the room.

> Q. Can we agree that in the set-top box in an IPTV system, or in the user equipment in an IPTV system, there is no piece of equipment called a tuner?
>
> A. I would not agree with that, no.
>
> Q. Okay. So what piece of equipment in the user television premises or in the user premises is called a tuner in an IPTV system? I'm looking for a piece of equipment here, Mr. Wahlers. What piece of equipment is called a tuner and where is it located?
>
> A. In a set-top box there is networking chips, hardware in the case of IPTV, that function as a tuner --
>
> Q. I didn't ask you what functions as a tuner. I asked you whether there is a piece of equipment called a tuner. Yes or no?
>
> A. I don't know of everybody's interpretation or use of that word in a technical level context to say a specific chip is a tuner, so I would have to agree with you that there isn't a chip in an architecture diagram in an IPTV system that has the word tuner on it.
>
> Q. Thank you. And as I understand your opinion, what you're trying to tell me, you say that in the context of an IP multicast system, selecting a specific signal by joining a multicast stream would be understood as functioning like tuning?
>
> A. Yes.

[193] Rovi argues that the language in the 870A Claim, which is a method claim, is focussed on the functionality of tuning to channels and not on the lower level hardware specifics. However, it too avoid tackling with the plain language of the 870A Claim.

[194] Rovi is essentially asking that I overlook the fact there is no "tuner" to direct in the 870A Claim because the Defendants use the terms "tune" and "Tuner" to describe their multicast systems. And yet, the 870 Patent has nothing to do with multicast systems. While such systems were known in the 90s, there is no mention of multicasting or IPTV in the patent, as conceded by Mr. Kerr.

[195] Having carefully considered the expert evidence, and the language of the 870 Patent and its disclosure, I prefer Mr. Kerr's construction of the terms "tuning" and "tuner", as expressed at paragraphs 17 to 20 of his infringement report, over that of Mr. Wahlers.

2. Validity

[196] The Defendants submit that the 870A Claim is anticipated by Browne.

[197] Browne is a WIPO application published December 23, 1992 on application by the inventors, Browne and Yurt. The invention relates generally to "a large capacity, random access, multi-source audio and video recorder player which is capable of receiving a plurality of simultaneous input signals and which allows a user to view and/or to record selected ones of the plurality of input signals."

[198] Anticipation is assessed as of July 14, 1998, the priority date of the 870 Patent. The test is a difficult one to meet, as noted in *Free World Trust* at paragraph 26:

> One must, in effect, be able to look at a prior, single publication and find in it all information which, for practical purposes, is needed to produce the claimed invention without the exercise of any inventive skill. The prior publication must contain so clear a direction that a skilled person reading and following it would in every case and without possibility of error be led to the claimed invention.

[199] If a published reference fails to either disclose or enable the essential elements of a claim, the patent claim is novel, or not anticipated (*Apotex Inc v Shire LLC*, 2021 FCA 52 at para 36 [*Shire LLC*]).

(a) Anticipation

[200] The experts agree on the essential elements of the 870A Claim:

i. Element 1: A method for using an IPG to receive user selections to record programs to a random access digital storage device.

ii. Element 2: Directing first and second tuners to tune to first and second broadcast channels corresponding to the first and second television programs in response to the first and second user selections.

iii. Element 3: Simultaneously recording the outputs of the two tuners to a random access digital storage device, wherein the broadcast times of the two programs overlap at least partially.

[201] As stated earlier, there are two separate requirements to show that prior art anticipates a claimed invention: prior disclosure and enablement.

(i) Prior Disclosure

[202] Rovi does not dispute that Element 3 is disclosed by Browne. The issue to be determined is whether Elements 1 and 2 are also disclosed.

1) Element 1: A method for using an IPG to receive user selections to record programs to a random access digital storage device

[203] The experts generally agreed on the construction of the term "interactive television program guide" used in the 870 Patent. Mr. Wahlers' construction provided that:

> "interactive television program guide" – is the hardware and/or software that processes television program listings information and generates display screens, and receives and processes user input, among other functions. The interactive television program guide is implemented fully or partially on user equipment in various arrangements.

[204] The key functionality of the IPG, agreed by both Mr. Wahlers and Mr. Kerr, is the user interface that allows a user to navigate television program guide information with an input device, and control playback and recording of programs. This functionality makes the program guide interactive.

[205] Element 1 is a method for using an IPG to receive user selections to record programs to a random access digital storage device. The latter is a well-known type of storage device that can

be read and written in any order, which facilitates rapid read and write speeds. Examples at the time included hard-disk drives and semiconductor memory (RAM – Random Access Memory). While the experts agree that Browne discloses recording programs to a RAM digital device, they disagree on whether Browne also describes using an IPG to do so.

[206] Mr. Kerr states in his validity report that Browne discloses an EPG by the "user interface," illustrated in Fig. 6 below, which the Skilled Person would understand to be an EPG.

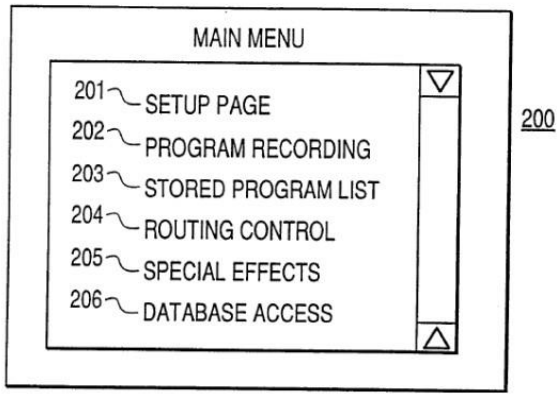
FIG. 6

600

						FREE PROGRAM MEMORY		4.75 HRS	
#	LOCKED	TITLE	SOURCE	CHANNEL	TIME	DATE	LENGTH	NOTES	VIEWED
1	☐	- - NOT YET - -	VHF	4	4:00 - 4:30	MAY 17, 1991	0.5	NOT YET RECORDED	☐
2	☐	- -	FM	99.5	1:12 - 1:20	MAY 15, 1991	0.12		☒
3	☐	NIGHTLY NEWS	VHF #	4	6:00 - 8:00	MAY 13, 1991	2.0		☐
4	☒	BATMAN	CABLE	29	8:00 - 10:00	DEC 28, 1990	2.0	KEEP FOR WENDY	☐
5	☐	THE ASTRONOMERS	VHF	13	6:30 - 7:30	MAY 13, 1991	1.0		☐

[207] Mr. Kerr explains that the user accesses the EPG to control the program recording process (including the RAM storage device), such as selecting the program source, channel, recording time, and other output settings. Fig. 2 of Browne depicts the "main menu" of the EPG, which allows the user to access setup options, program recordings, a stored programs list, and other options.

FIG. 2



[208] The user can use the EPG to select the channel source (e.g., cable, antenna, satellite, etc.), and time of the programs they wish to record, as shown in Browne Figs. 5A-5E.

FIG. 5A

FIG. 5B

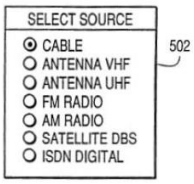


FIG. 5C

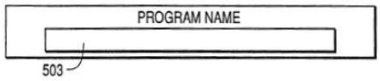


FIG. 5D

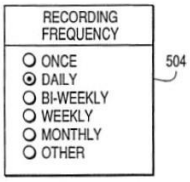
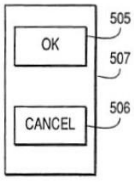


FIG. 5E



[209] The user can enter a title for the program to be recorded (Fig. 5C), and specify the recording frequency, for example to record TV shows that air at regular dates and times (Fig

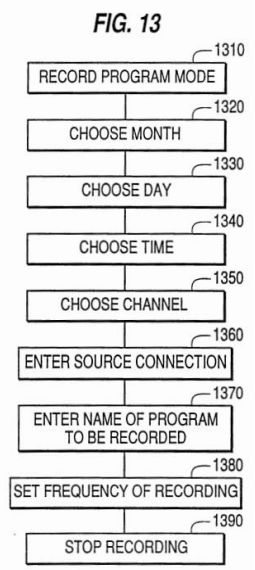
5D). In light of the above, Mr. Kerr concludes that Browne discloses a method for using an EPG to receive user selections to record programs to a RAM storage device.

[210] In his responding report, Mr. Wahlers criticizes Browne because "the terms 'EPG', 'electronic program guide' or even 'program guide' do not appear in Browne." However, it is irrelevant whether the term EPG is used in Browne as the allegedly anticipatory art need not describe the claimed invention exactly: *Abbott Laboratories* at para 75.

[211] It bears repeating that the teachings of the prior art are to be read as a Skilled Person would understand them. By definition, that Skilled Person is aware of the CGK: *Western Oilfield* at para 86. The disclosure must be sufficient so that when read by a person skilled in the art willing to understand what is being said, it can be understood without trial and error.

[212] In examination-in-chief, Mr. Kerr explained that although Browne does not use the word EPG, it defines the functionality of an EPG that could be used to digitally record programs and to control the whole recording device. According to Mr. Kerr, an example of this functionality is displayed in Figure 6 of Browne.

[213] Browne states at page 31-32 "in order to perform recording, the user preferably follows the steps shown in the flowchart of Fig. 13." During his cross-examination, Mr. Kerr was shown Fig. 13, reproduced below.



[214] It is in that context that the following exchange took place:

> Q. …This is the figure that describes how a user sets a recording as we've just seen a moment ago, correct, Mr. Kerr?
>
> A. It is one of the ways, but it is not the only way. And Browne as I've said, and I mentioned it on Monday in the direct examination, I went through how Browne actually discloses the ability for some form of screen or program listings to be made available for future programs where the user would be able to choose one to record.
>
> Q. And that is your adding your common general knowledge to what Browne is saying, correct? As opposed to that's what Browne says?
>
> A. Browne doesn't use the word "EPG" but it describes the functionality necessary to perform that task. And so I'm not adding common general knowledge to fill in a gap. I'm simply saying that a skilled person would in 1998 understand that with their experience and expertise that that is what is -- was then called an EPG and would now be called an EPG for that time. And that evidence I provided to Mr. Mason on Monday.
>
> Q. All right. And so in terms of the Browne specifically pointing to you're saying one way of setting a recording –
>
> A. Yes.
>
> Q. – you'll agree with me Figure 13 is that?

> A. It's certainly one of the ways. It was very much disclosed, and I made that very clear what I said to Mr. Mason. This was one of the ways which Browne discloses that you can make a recording. Absolutely. **Very manual, very straightforward, but not really what a 1998 skilled person would describe as a particularly interactive program guide, in my opinion.**
>
> [My emphasis.]

[215] Mr. Kerr further admitted during his cross-examination that the controller, as described in Browne, does not necessarily meet all the requirements of an IPG.

[216] The above admissions are fatal to the Defendants' allegation of anticipation. As explained by Mr. Wahlers, the EPG described in Browne is a menu-based system that provides users with continuously updated scheduling information of current and upcoming programming. While such EPGs typically consist of a digitally displayed, non-interactive menu of programming scheduling information, an IPG described in the 870 Claims allows users to navigate scheduling information menus interactively, for example selecting and discovering programming by time, title, channel or genre using an input device. The EPG described in Browne does not meet this definition.

[217] In the circumstances, I find that the Defendants failed to establish that the 870A Claim was anticipated by Browne.

[218] In the alternative that I find that Element 1 was disclosed in Browne, I find the 870A Claim anticipated by Browne.

2) Element 2: Directing first and second tuners to tune to first and second broadcast channels corresponding to the first and second television programs in response to the first and second user selections.

[219] There is no dispute that Browne discloses a tuner. Mr. Wahlers conceded that the Skilled Person would understand the "input demodulators" described in Browne to be a type of tuner. In fact, Mr. Wahlers conceded that Browne discloses up to seven tuners, which can be tuned to seven different channels simultaneously.

[220] In his validity report, Mr. Kerr stated that the Skilled Person would understand Element 2 to mean "causing a tuner to tune to a specific channel in response to the user's selection." Mr. Wahlers generally agreed with this construction.

[221] At paragraph 89 of his responding validity report, Mr. Wahlers criticizes Browne because it does not disclose the "directing" of tuners based on the following reasoning:

> 89. Mr. Kerr cites to Browne at page 9 stating that "the number of input demodulators may vary but there should be at least two". Browne discloses that the number of input demodulators (which are a type of tuner) corresponds directly to the modulated input signals which are received by the multi-source recorder player, and that there should be at least two demodulators (Browne, page 9). I understand this to mean that there are at least two signals automatically recorded at the head end. Browne makes no reference to the direction of tuners/input demodulators.

[222] In my view, this is a misreading of Browne. The whole invention in Browne is recording by a user to a video recorder, as plainly stated in the background of the invention.

> The present invention relates generally to a large capacity, random access, multi-source audio and video recorder player which is

> capable of receiving a plurality of simultaneous input signals and which allows a user to view and/or to record selected ones of the plurality of input signals.

[223] In fact, Mr. Wahlers conceded in cross-examination that Browne was targeting a user in the home being able to record programs simultaneously.

[224] I find that Browne discloses that the user selects which programs to record through the "controller/interface" which, as discussed above, is the EPG. Browne also discloses that the input demodulators and tuners respond to the selections the user makes in the EPG.

[225] Mr. Kerr's analysis that Browne discloses selection and direction to record is well-founded and persuasive. Accordingly, I find that Browne discloses Element 2 of the 870A Claim.

(ii) Enablement

[226] In terms of enablement, Mr. Kerr states in his validity report that Browne provides extensive details regarding specific means and system components that would enable the Skilled Person to practice the method of the 870A Claim without difficulty or the need for undue experimentation. He added:

> 334. … Browne provides a description of the technical background of the invention, the problem the inventors set out to solve (i.e., limitations in the storage capacity and user interaction with VCRs), and a description with detailed figures that teach the skilled person how to put the invention into practise. Indeed, Browne provides considerably more detail regarding how to record two programs simultaneously to a local digital storage device than the 870 Patent.

[227] Rovi argues that Browne would not enable the Skilled Person to put the 870A Claim into practice for two reasons. It claims that the system disclosed in Browne is meant for a head-end-like facility that a cable or satellite operator may maintain, rather than for consumer use. It also claims that the extent of equipment and infrastructure described in Browne would not be feasible, either technologically or financially, to implement in a consumer's home as a consumer electronic device. In my view, these arguments are not supported by the evidence.

[228] Mr. Kerr disagreed with the suggestion by Rovi's counsel that the Skilled Person would not think of a consumer device in someone's home when reading Browne.

> A. I don't really agree because as you pick this document up it's quite clear in various places that once it does not claim this was a device you could buy for 200 dollars in a store in 1992, because I am as certain as I can be they would not have managed to do that. It was nonetheless an invention which related to a sophisticated piece of consumer equipment which Browne obviously hoped in the future would be able to be produced at a viable cost. And Browne is not trying to claim inventiveness in terms of adding a device which is at a consumer level cost in 1992. Inventiveness is to do with the functionality and how this, well, the whole disclosure here.

[229] Although Mr. Wahlers argues in his validity report that Browne does not teach a consumer electronic device, such as an STB, he readily conceded on multiple occasions in cross-examination that Browne was directed towards a system that could be placed in a user's home.

> Q. Next paragraph: "Another object of the present invention is to allow the user to record from multiple channels individually, serially or simultaneously." They're there talking about the user in the home being able to record programs simultaneously, fair?
>
> A. Yes.

[230] Mr. Wahlers opined in his validity report that by September 17, 1998, the extent of equipment and infrastructure described in Browne would not be feasible, either technologically or financially, to be implemented in a user's home as a consumer electronic device. However, Mr. Wahlers conceded in cross-examination that if the Skilled Person had the money and the time, they could build the device in Browne and put it in the user's home in 1998.

[231] Rovi maintained in its closing submissions that it would be expensive and complex to build the device disclosed in Browne. However, as correctly pointed out by the Defendants, that is not the test for enablement. The test is whether the Skilled Person could build the device without difficulty or the need for undue experimentation. Their own expert conceded that they could.

[232] Mr. Kerr's opinion on enablement is well supported and was not shaken in cross-examination. I find that Browne enables the three essential elements of the 870A Claim.

[233] In summary, given my finding that Element 1 is not disclosed, the 870A Claim is not anticipated by Browne.

(b) Obviousness

[234] The Defendants submit that the inventive concept/subject matter of the 870A Claim is obvious.

[235] Section 28.3 of the *Patent Act* requires that the subject-matter defined by a claim in an application for a patent in Canada must not have been obvious on the claim date to a person skilled in the art or science to which it pertains. The priority date for assessing obviousness with respect to the 870 Patent is July 14, 1998.

[236] With obviousness, the invention need not be disclosed in one single patent or piece of prior art, as is the case for anticipation. The Defendants rely on the CGK, Browne and DAVIC 1.3.1. in support of their obviousness argument.

[237] Rovi submits that there was no evidence of why the Skilled Person would be motivated to combine the prior art. The Defendants counter that there is no need to do so in this case. They say that the inventive concept/subject matter of the 870A Claim is obvious in light of the CGK, or the CGK and Browne, or the CGK and DAVIC 1.3.1.

[238] Applying the framework in the *Sanofi-Synthelabo* test, having already identified the credentials and characteristics of the Skilled Person earlier in these reasons, the next step is to identify the CGK of the Skilled Person.

(i) Stage 1: Identify the Skilled Person and the CGK

[239] The 870 Patent admits that IPGs were known. It also admits that IPGs that have digital storage devices were known.

[240] Moreover, by July 1998, the following was CGK of the Skilled Person, as admitted by Mr. Wahlers in cross-examination:

A. how to integrate an IPG into an interactive television system that allows users to store programs on an independent storage device;

B. digital storage devices such as hard disk drives and recordable DVD's could be used to record broadcast TV; and

C. use of a digital storage device to record broadcast programs by connecting the device to a STB using an appropriate interface.

[241] Rovi submits that directing tuners was inventive as of 1998. However, that is not evidence before me. It is quite the opposite. There is no magic to the concept of "directing a tuner to tune" to a channel in the 870A Claim. It essentially means causing a tuner to tune to a specific channel in response to the user's selection. Mr. Wahlers conceded that the Skilled Person knew how to direct tuners during his cross-examination.

> Q. And certainly by September of 1998 persons of skill in the art were very familiar with how to direct tuners to tune to programs, fair?
>
> A. Again, that's a tough – it's a specialized skill set, controlling hardware at that level. I'm not sure if a normal skilled person would implement that. Certainly the supplies of the demodulator technology would be supportive, so I think a skilled person with assistance could in time sort that out, yes.
>
> Q. They've been doing it for 40 years before the date of this patent, hadn't they?
>
> A. Over the air in cable in the early 90s, it was somewhat new and certainly specific to a few companies that were selling technology in that space, but yes, in school you could learn about F -- radio

> frequency type tuning, and certainly I think a skilled person should be able to educate themselves to the understanding of that, even if they don't have that experience.

(ii) Stage 2: The Inventive Concept

[242] The experts agree that the inventive concept/subject matter is the same as the three essential elements identified above in the anticipation analysis. In essence, the subject matter of the 870A Claim is using an IPG to direct more than one STB to simultaneously record two programs.

(iii) Stage 3: Difference between the State of the Art and the Inventive Concept

[243] According to Rovi, what is missing from the prior art is Element 1 (using an IPG to record programs) and Element 2 (directing a first and second tuner). Rovi argues that the differences between the prior art and the 870A Claim are significant and required ingenuity. It submits that a Skilled Person reading Browne or DAVIC 1.3.1 would not have come to the particular methods of the 870A Claim without an inventive step. I disagree.

[244] Rovi's entire strategy in defending the validity attacks on its Patents is to poke holes in the prior art and conveniently ignore the CGK of the Skilled Person, the very same CGK assumed to be possessed by the Skilled Person reading their Patents. This is fatal to Rovi's case.

[245] By the time the earlier priority document of the 870 Patent was filed, DAVIC 1.3.1 had been published. Multimedia companies advertised DAVIC-compliant systems showing it was a well known and respected organization, with a standard capable of implementation.

[246] DAVIC 1.3.1 standardized the idea of using an IPG to control television systems. This is clearly reflected in the introductory paragraph of section 8 entitled "Common Requirements of Applications and Services" which reads as follows:

> Section 8 defines a set of functions that apply to all applications that may be deployed on a DAVIC system. Section 8.1 describes functions of navigation and interaction. These functions provide capabilities to find and select content and to control playback and presentation of this content. Section 8.2 describes common functions for service and content management. The next section, 8.3, describes functions concerning the IPR and security functions a DAVIC system must provide. The last section, 8.4, describes the general aspects of the DAVIC environment. These include functions concerning interoperability, portability and latency.

[247] DAVIC 1.3.1 also taught and standardized recording programs to a local digital storage device and recording multiple programs at the same time. Mr. Kerr cited as an example the delayed broadcast functionality in DAVIC 1.3.1, which supports recording a number of programs selected by a number of users simultaneously.

[248] There is no dispute that Browne taught the ability to simultaneous record two programs at once. This was an old idea. Significantly, Mr. Wahlers conceded that Browne was taking about the user in the home being able to record programs simultaneously.

[249] Rovi complains that the user interface used in Browne is not an IPG. This can be explained by the fact that processing and storage capabilities of STBs was generally limited in the early and mid-1990s and the functionality of an EPG on such a platform was limited. However, additional interactive functionality, such as viewing programming by time or genre, obtaining more information about particular programs, and facilitating recording of programs, progressively became available as STB capacity and memory increased and the cable industry moved inexorably from analog to digital systems.

[250] While cable companies may have been slow to adopt the technology, the technology existed. An IPG was a market requirement and there were no technical obstacles to implement it.

[251] Mr. Wahlers conceded that in mid-1998 IPGs were CGK, that the Skilled Person knew how to integrate an IPG into an interactive television system that allows users to store programs on an independent storage device, and that there was nothing inventive about using an IPG to record programs to a storage device. In fact, commercial devices capable of doing exactly that were being marketed at that time.

[252] Rovi argues that Browne does not teach “directing tuners.” However, there is nothing inventive about directing tuners, as admitted by Mr. Wahlers. It was a very old concept and clearly CGK.

[253] On the evidence before me, I find that by 1998, there were no differences between the state of the art, the CGK and the 870A Claim.

[254] Given that there is no difference between the state of the art and the inventive concept, I need not proceed to stage 4 of the *Sanofi–Synthelabo* test.

[255] I agree with Mr. Kerr that the subject matter of the 870A Claim was immediately and intuitively obvious to the Skilled Person in 1998, if not before, based on the CGK alone or, alternatively, based on the CGK and Browne or, in the further alternative, based on DAVIC 1.3.1 and the CGK.

[256] The Defendants have met their burden of establishing that the 870A Claim is invalid as obvious

3. Infringement

[257] If I am found to be incorrect in this finding, the result would be, as conceded by the Defendants, that the 870A Claim was infringed by the Fibe TV and Optik TV services until the 870 Patent expired.

B. *The 870C Claims*

[258] The subject matter of the 870C Claims is the ability to request playback by a second user's equipment (for example a STB) of a program recorded on a first user's equipment. Claim 456, an asserted claim, is dependent on claim 454, a non-asserted claim. Claims 721 and 724 are dependent on claim 720, also a non-asserted claim. The said claims read as follows.

> 454. A method of playing back programs stored on another user's user equipment, comprising:

generating a request to playback a program with a first user equipment, wherein the program was recorded on a second user equipment in response to a record request generated at the second user equipment;

in response to the request to playback, receiving with the first user equipment the program from the second user equipment; and

generating for display the received program.

456. The method of claim 454, wherein the program is a broadcast program.

720. A method for playing back programs, the method comprising:

receiving a record request at a first user equipment to record a program on the first user equipment, wherein the first user equipment is coupled to a first display screen configured to generate for display video;

in response to receiving the record request at the first user equipment, recording the program on the first user equipment;

transmitting, from a second user equipment to the first user equipment, a request to play back the program, wherein the second user equipment is coupled to a second display screen configured to generate for display video;

receiving, at the first user equipment from the second user equipment, the request to play back the program;

in response to receiving, at the first user equipment from the second user equipment, the request to play back the program, transmitting the program to the second user equipment;

receiving, at the second user equipment, the transmitted program from the first user equipment; and

generating for display, at the second user equipment, the received program on the second display screen.

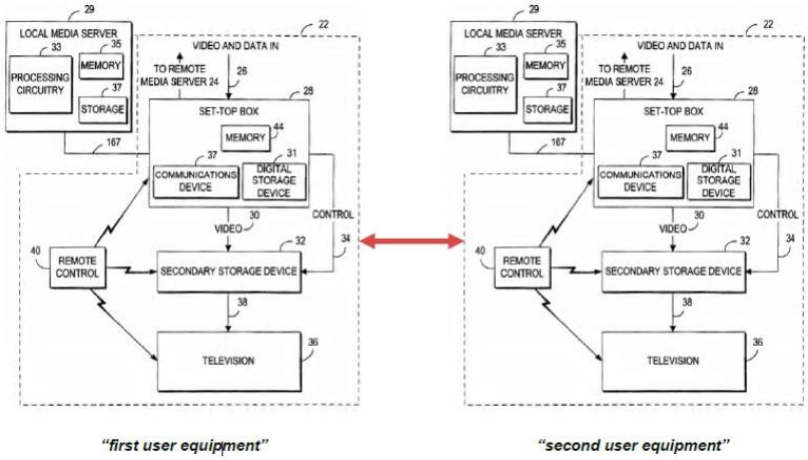
721. The method of claim 720, wherein the program is a broadcast program.

724. The method of claim 720, further comprising:

recording the program on the first user equipment with media guidance data associated with the program.

[259] No claim construction issues have been identified by the parties. I would simply note for the purpose of my analysis that Mr. Wahlers did not take issue with Mr. Kerr's construction of the element "generating a request to playback a program with a first user equipment, wherein the program was recorded on a second user equipment in response to a record request generated at the second user equipment," as set out below:

> 232. This claim element refers to a "first" and a "second" user equipment. I explained the skilled person's understanding of the term "user equipment" at paragraphs 229 to 230, above, with reference to Fig. 7 in the 870 Patent. Claim 454 contemplates two sets of such user equipment, which can be depicted as set out below:



> 233. Although there is no description of this functionality in the patent, the skilled person understands that the first and second user equipment can communicate with one another, either directly or through an intermediate device (such as a home network, router, modem, or other network component), using known networking technology (e.g., CEBus, LAN, HPNA, the Internet, or others). I depicted this communication with the red two-way arrow above.

> 234. The skilled person understands that the first user equipment generates a request to playback a program. This can be done in response to a user control signal, or some other control signal generated by the system. The program that is the subject of the request was recorded on the second user equipment in response to a record request generated at that second user equipment, again in

> response to a control signal arising from a user input, or some other signal generated by the system.

[260] The Defendants do not dispute that the 870C Claims would be infringed in the event they were found to be valid.

[261] The Defendants claims that all of the essential elements of the 870C Claims are obvious in light of the GGK alone, or the CGK and DAVIC 1.3.1, or the CGK and Hair.

1. Validity

(a) Obviousness

[262] As stated earlier, the priority date for assessing obviousness with respect to the 870 Patent is July 14, 1998.

(i) Stage 1: Identify the Skilled Person and the CGK

[263] Applying the framework in the *Sanofi-Synthelabo* test, having already identified the credentials and characteristics of the Skilled Person earlier in these reasons, the next step is to identify the CGK of the Skilled Person. The CGK is the same as for the 870A Claim. In addition, the state of the art includes Hair and DAVIC 1.3.1.

[264] The Defendants submit that of particular relevance to the 870C Claims are the references in DAVIC 1.3.1 and the CGK relating to home networking.

[265] DAVIC 1.3.1 describes at section 7.2, under the heading of "HOME NETWORK," the ability to exchange information, potentially in a direct and simple manner, between devices on a home network, accompanied by a simple illustration.

> As multiple digital services begin to penetrate the consumer market, the need will arise for an in-home digital network that will provide selectable access to these services from multiple in-home devices. Furthermore, the introduction of digital storage devices in the home will expand this need. Home networks for DAVIC must support the functions required to link digital consumer devices so that information may be exchanged among these devices in a simple and direct manner.

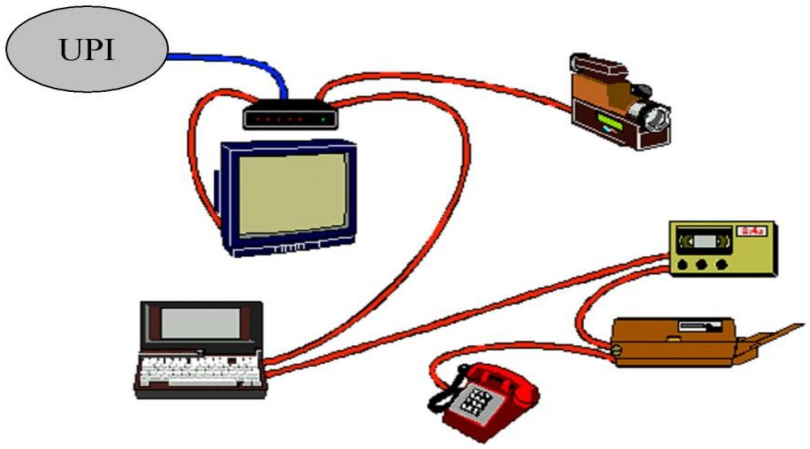


Figure 7.2: Home Network

[266] There is no dispute that sharing information between devices was known by 1998.

[267] Although home networking was not widespread at the time, the experts agreed that home networking was known by 1998.

[268] As explained below, Mr. Wahlers also conceded in cross-examination that the ability to have a first user device playback a request generated on a second user device is peer-to-peer transmission, a concept that is part of home networking.

[269] In summary, the CGK included sharing information between devices, home networking and peer-to-peer transmission.

(ii) Stage 2: The Inventive Concept

[270] The experts agree that the inventive concept of the 456 claims comprises three elements:

i. Element 1: Generating a request to playback a broadcast program with a first user equipment.

ii. Element 2: Wherein the broadcast program was recorded on a second user equipment in response to a record request generated at the second user equipment.

iii. Element 3: In response to the playback request from the first user equipment, receiving with the first user equipment the broadcast program from the second user equipment, and generating for display the received program.

[271] The inventive concept of claims 721 and 724 include the above three elements and also include:

i. Element 4: Both the transmitting and receiving user equipment be connected to a display.

ii. Element 5: The program recorded and transmitted be a broadcast program.

iii. Element 6: Recording the program on the first user equipment with media guidance data associated with the program.

[272] In essence, the subject-matter of the 870C Claims is the ability to request playback by a second user's equipment of a program recorded on a first user's equipment.

(iii) Stage 3: Difference between the State of the Art and the Inventive Concept

[273] The Defendants submit that the people at DAVIC were talking about the very thing that the 870 Patent claims. DAVIC was aware of the increasing availability of digital storage devices, and explicitly contemplated such devices as part of users' home networks. Streaming video from one device to another was also contemplated.

[274] The Defendants further say that the idea of transferring that information back and forth and the possibility of streaming video from one device or another was not Rovi's idea. It was an idea that was being discussed at DAVIC and the Skilled Person knew how do it.

[275] Rovi counters that the 870C Claims would not be obvious in light of DAVIC 1.3.1, Hair and the CGK. It claims that there are important differences between the prior art and the 870C Claims. According to Rovi, each of the following elements is required of the 870C Claims but is absent from the prior art:

a) generating a request to playback a broadcast program with a first user equipment;

b) in response to the playback request from the first user equipment, receiving with the first user equipment the broadcast program from the second user equipment, and generating for display the received program; and

c) the broadcast program was recorded on a second user equipment in response to a record request generated at the second user equipment.

[276] Rovi maintains that these are not trivial differences; rather, these inventive differences required ingenuity. It says that the Skilled Person reading DAVIC 1.3.1 would not have come to the particular methods of the 870C Claims without an inventive step. I disagree.

[277] DAVIC 1.3.1 explicitly describes home networking. As Mr. Kerr testified, DAVIC 1.3.1 recognized that "home networks for DAVIC must support the functions required to link digital consumer devices so that information may be exchanged among these devices in a simple and direct manner." This includes comprehensive requirements for communications between two user devices like STBs to transfer recorded broadcast programs from one STB to another and to display requested programs on the receiving user's device.

[278] Rovi submits that the communications described in DAVIC 1.3.1 are not the "request for playback" required by Elements 1 and 3. It argues that while Mr. Wahlers and Mr. Kerr agreed that DAVIC 1.3.1 sets out a set of "requirements for communications between user devices in the home," playback is not simply "communication."

[279] Rovi claims that Mr. Kerr admitted that playback is not described in any DAVIC 1.3.1 sections; however, no such admission appears anywhere in the record. While Mr. Kerr did agree that certain requirements in DAVIC 1.3.1 did not refer to playing back recordings or playback requests, he indicated that it was a "deeper requirement" or "another layer up." His evidence on this point was left unchallenged.

[280] Rovi denies the Defendants' assertion that Mr. Wahlers admitted that DAVIC 1.3.1 taught the Skilled Person the ability to play back a program recorded on another STB, and only agreed that the network would involve STBs communicating with each other. However, I find that Mr. Wahlers in fact conceded during his cross-examination that the ability of a first user to access and playback a program requested by a second user was DAVIC's goal, or "the target that the industry was aiming for."

> Q. So when they read all these things they understand that what this means is if you have a device in the home that records a program then you should be able to access that digital recording from any other device in the house.
>
> A. I think that certainly was the goal, the target that the industry was aiming for, is, yes, these devices in the home, be they multiple STUs, be they fax machines, that they would all be able to communicate over some sort of network.
>
> Q. Right, and that would include, if user number one downloaded a program over their broadcast network to their recorded device in user number one's equipment, then user number 2's equipment upstairs should be able to access that recorded program, right?
>
> A. Yes. Certainly the 870 claims are targeting, asserted claims are targeting a feature that falls under the umbrella of those functional requirements.
>
> Q. Right. And certainly the people at DAVIC would have understood when they were talking about all of these functional requirements, including that the network should be able to access any available service at any point on the network, the skilled

> person reading this would understand that that would include things like playing back a program on a second user's device that was recorded on the first user's device, right?
>
> A. There would be a general understanding that video would be shared as the functional specs delineate. They may or may not certainly understand, certainly some participants would understand and were probably working on how those devices might interact and exchange. They would certainly be thinking about the idea of transferring information back and forth and they would in some cases be thinking about the possibility of streaming of video from one device to another.

[281] Given that this was the goal, or target, of what DAVIC was trying to achieve in DAVIC 1.3.1, Rovi cannot succeed in claiming that its subsequently filed 870C Claims on DAVIC's goal are somehow inventive. DAVIC had already decided how the so-called "Lego pieces" should be assembled.

[282] Based on the evidence before me, the 870C Claims provide nothing more than an idea that was already being targeted by DAVIC 1.3.1.

[283] Rovi again argues that DAVIC 1.3.1 is "nothing more than a bare list of desired functionality without any description or detail as to how to implement that functionality." However, Rovi ignores that its own patent is a list of desired functionality with no detail as to how to implement.

[284] During his direct examination, I asked Mr. Wahlers where within the 870 Patent one could find the instructions for the 870C Claims. He responded that they were not needed in the 870 Patent because the Skilled Person would already have that information:

> A. The patent doesn't go into networking language, Internet protocol and the wiring, so it doesn't provide. I don't think it needs to, detail on that form of networking. As is stated by Mr. Kerr, certainly the skilled person would understand the concepts of networking and IP base in their business environments and the transition of that technology into the home space. [Emphasis mine.]

[285] On cross-examination, Mr. Wahlers tried to resile from this admission by denying that a Skilled Person would know how to make a home network. However, when confronted about the lack of detail in the 870 Patent and his own admission in his examination-in-chief, Mr. Wahlers changed his mind again and agreed that as of 1998, the Skilled Person already knew how to "rig up" a system described in Claim 456 of the 870 Patent, as reflected in the exchange below.

> Q. Let me finish my question, Mr. Wahlers. I ask you on September of 1998 to build me claim 456, you're telling me you couldn't do that? Yes or no. Could the skilled person build claim 456?
>
> A. He would understand –
>
> Q. As of July 1998?
>
> A. He would understand how to network in a business context the wires that were used in that context. And the designers of the hardware, the set-top box, having included the necessary connectors how to put those together. And yes, the interfaces and everything to talk to those wires would be there and he would be comfortable using those interfaces because they would be similar to the interfaces he would use in a PC environment.
>
> Q. So they could rig up a system -- not a commercial system --
>
> A. Right.
>
> Q. -- but the skilled person could rig up a system that would allow user device number 2 to ask user numbered device to playback a program, right? A. Yes.
>
> Q. They would at least have that level of knowledge and information to be able to do that?

A. Certainly in the environment that they're developing this technology. That would have to exist they would have to be --

Q. Thank you.

A. -- able to connect a programing device.

[286] In summary, I find that the CGK and DAVIC 1.3.1 renders all of the 870C Claims obvious for the following reasons:

(a) Elements 1 and 2 were obvious: DAVIC 1.3.1 taught the Skilled Person how to implement a home network, and required that DAVIC systems support connections between user equipment such that information such as video could be exchanged between them.

(b) Element 3 was obvious: DAVIC 1.3.1 taught a method that allowed a user to transmit requests for and then receive recorded broadcast programs. DAVIC 1.3.1 also taught that the requested programs can be displayed on a receiving user's television.

(c) Element 4 was obvious: DAVIC 1.3.1 taught that this communication could include transmission of video between devices and that the devices connected in the network could include multiple displays.

(d) Element 5 was obvious: DAVIC 1.3.1 taught recording broadcast programs to a local digital storage device – for example, DAVIC 1.3.1 described a STB coupled to a "digital video recorder" which was a display.

(e) Element 6 was obvious: DAVIC 1.3.1 taught that if a program was stored in the user's equipment, the user must be able to locate and view information about the program to select the item and play it back.

[287] Although not strictly necessary, I also find that Hair together with the CGK renders all of the 870C Claims obvious.

[288] The Field of the Invention of Hair state the invention relates to "a system and associated method for the electronic sales and distribution of digital audio or digital video signals, and more particularly, to a system and method which a user may purchase and receive digital audio or digital video signals from any location which the user has access to telecommunications lines." One of the objectives of the invention is to provide a new and improved methodology or system to electronically store and retrieve digital audio music or digital video.

[289] Hair expressly teaches transferring video files from one user equipment within a home (or between homes) to another user equipment and the ability to playback that request. I reproduce below an extract of page 6 of Hair as it is quite instructive.

> For instance, the present invention is a system 100 for transferring digital video signals from a first party to a second party. The system 100 comprises a first party control unit 20 having a first memory having a plurality of desired individual video selections as desired digital video signals. The first party control unit 20 also has means or a mechanism for the first party to charge a fee to the second party for access to the desired digital video signals. The system 100 also comprises a second party control unit 50 having a second party control panel 50a, a receiver and a video display for playing the desired digital video or digital audio signals received by the receiver. The second party control panel 50a is connected to the video display and the receiver. The receiver and the video

> display is operatively controlled by the second party control panel 50a. The second party control unit 50 is remote from the first party control unit 20. The second party control unit 50 is placed by the second party at a second party location determined by the second party which is remote from the first party control unit 20. The second party chooses the desired digital video signals from the first memory with the second party control panel 20a. The system 100 is also comprised of telecommunications lines connected to the first party control unit 20 and the second party control unit 50 through which the desired digital video signals are electronically transferred from the first memory to the receiver while the second party control unit 50 is in possession and control of the second party after the desired digital video signals are sold to the second party by the first party.

[290] Rovi initially argued that Hair does not disclose a system to request playback because it does not disclose a system for viewing content on one STB that was recorded on a second STB. However, it appears to have abandoned this position.

[291] Rovi's only complaint is that Hair allows files to be transferred from one device to another but does not allow "streaming," which Rovi says is required by the 870C Claims. However, Rovi's argument is not supported by either expert.

[292] On cross-examination, Mr. Kerr was asked whether Hair taught allowing playback of a file as it was being transferred from one user to the other. Mr. Kerr was clear that Hair only allowed for playback once the entire file was transferred. Both Mr. Kerr and Mr. Wahlers agreed that the 870C Claims do not require playing a program while it is streamed, but rather transferring the entire file.

[293] Rovi submits that it would not have been obvious to the Skilled Person to adopt the general file transfer system described in Hair to effect the methods of the 870C Claims. I disagree. For the sake of brevity, I accept the opinions expressed by Mr. Kerr at paragraphs 442 to 467 of his validity report addressing each of 870C Claims. They are well supported and persuasive.

[294] I agree with Mr. Kerr that there is no difference between the state of the art and the inventive concept of 870C Claims and that the inventive concept/subject matter of the 870C Claims would have been obvious in light of the Hair together with the CGK.

[295] Therefore, there is no need not proceed to stage 4 of the *Sanofi–Synthelabo* test.

C. *Validity issue relating to the 870 Patent as a whole*

1. Overbreadth

[296] The Defendants submits that all of the 870 Claims are broader than the invention made by the inventors.

[297] As stated by Mr. Justice George Locke in *Seedlings Life Science Ventures, LLC v Pfizer Canada* ULC, 2021 FCA 154 [*Seedlings FCA*] at para 50, “overbreadth remains a proper ground of invalidity.” A patent claim can fail for overbreadth (or overclaiming) in two ways: it can be broader than the invention disclosed in the specification, or it can be broader than the invention made by the inventor: *Pfizer 2007* at para 115.

[298] A claim is overly broad and invalid if it asserts "exclusive property or privilege in something the inventor did not actually invent" (*Pfizer 2007* at para 116). The question of the invention made is one of fact: *Pfizer 2008* at para 46. In determining what the inventors created, the Court will look to evidence regarding what the inventors actually did: *Pfizer 2008* at paras 45-46.

[299] The Defendants' argument is elegant in its simplicity. They point to the following facts they allege make out their case.

[300] First, on cross-examination, Mr. Ellis, one of the inventors of the 870 Patent, admitted that the invention he made in July 1998 was limited to that which he described in the 807 Application.

> Q. Does the original application accurately describe the invention you made in July of 1998?
>
> A. Yes.
>
> Q. And the invention was the creation of the provisional application, is that fair?
>
> A. Yes. And the invention disclosure form prior to that.

[301] Second, in Mr.Kerr's words, "[t]here is limited, if any, overlap between the subject matter disclosed in the 807 Application and the subject matter claimed in the Asserted Claims of the 870 Patent." Mr. Kerr states in his validity report that the 807 Application is a one page document which (1) does not disclose simultaneously recording two programs to a random access storage device (the subject matter of the 870A Claim), and (2) does not disclose generating playback requests of a program with a first user equipment where the program was

recorded on a second user equipment in response to a record request from the second user equipment (the subject matter of the 870C Claims).

[302] Third, Mr. Wahlers provided no responding opinion and Mr. Kerr was not cross-examined on this point. In fact, Mr. Wahlers was never shown the 807 Application and thus was not provided an opportunity to decide whether the 870 Patent was broader than the invention made. Mr. Kerr's evidence on this point is uncontradicted.

[303] The Defendants submit that the uncontroverted and unchallenged evidence from Mr. Kerr is what the inventors claimed in the 870 Patent is significantly broader than the 807 Application and the 870 Claims are invalid on that basis.

[304] Rovi takes the position that the "invention made" is to be determined as of the filing date, not the priority date. It notes that counsel for the Defendants did not ask Mr. Ellis whether the 870 Patent described the invention as of 1999 when there was a full application filed, and that the Court is being asked to draw a conclusion in the face of not having put that question to him. I agree.

[305] The Defendants submit that Mr. Ellis admitted that the invention he made is encompassed by the 807 Application. However, on the record before me, it not clear "the invention" he was referring to was the invention in the 870 Patent. Mr. Ellis had just been asked to focus on the provisional application and the discussions between the inventors about concepts that could potentially be put into a system.

[306] Mr. Ellis testified that he worked with outside counsel once a decision was made to pursue a patent to ensure that the patent was drafted and that he participated in the reviews along with the named inventors.

[307] The Defendants have failed to rebut the presumption that the invention made is determined by the patent itself. Therefore, I reject the argument that the 870 Claims are overbroad.

XVII. The 629 Patent

[308] The 629 Patent was filed on September 16, 1999. It claims priority to US Application No. 09/157, 256 filed on September 17, 1998.

[309] The 629 Patent is titled, "Electronic Program Guide with Digital Storage." It relates to an interactive television program guide running on a STB and having integrated digital storage, allowing users to record programs and maintain program guide data (e.g., titles, descriptions, genres, etc.), as well as display guide data.

[310] The patent disclosure describes the problem addressed by the 629 Patent.

> Recently, interactive program guides have been developed that allow for storage of programs selected within the program guide on an independent storage device, typically a videocassette recorder. Usually, a control path involving an infrared transmitter coupled to an infrared receiver in the videocassette recorder is used to control the videocassette recorder. The use of independent analog storage devices like videocassette recorders, however, does not allow for the more advanced features that might be implemented if a digital storage device were associated with the program guide.

[311] The 629 Claims relate to the use of digital storage to achieve one set of such "advanced features": the ability to store and display information associated with recorded programs, also known as "associated program data."

[312] In the 629 Patent, an EPG implemented on the "user's television equipment" allows the user to navigate through programs available on various channels. The user's television equipment can include devices such as a STB, remote control, television, and digital storage device.

[313] The 629 Claims include both system and method claims and describe an EPG running on user equipment with digital storage that stores programs on user request, and maintains listings of the recordings. Other features of the 629 Claims include the ability to display listing screens within the program guide, and the ability to view more detail on a recorded program.

[314] Claims 79 and 80 are both dependent system claims. Claim 79 depends on Claim 78, which itself depends on Claim 77 (an independent claim). Claim 80 depends on Claim 79.

> 77. A system in which programs and associated program data are displayed for users by an interactive television program guide implemented on user television equipment, comprising:
>
> a digital storage device in the user television equipment for digitally storing the programs and associated program data using the interactive television program guide in response to receiving a user request to digitally store the programs; and
>
> means for maintaining a directory of the digitally stored associated program data using the interactive television program guide.
>
> 78. The system defined in claim 77 further comprising a means for displaying a directory listing screen on the user television equipment using the interactive television program guide.

> 79. The system defined in claim 78 wherein the directory listing screen comprises:
>
> means for indicating directory entry information; and
>
> means for providing a user with an opportunity to select directory entry information;
>
> wherein the display means further comprises means for displaying a full entry information screen in response to the selection by a user of directory information.
>
> 80. The system defined in claim 79 wherein the full entry information screen comprises a plurality of fields of directory entry information selected from the group consisting of: title, description, episode, channel, duration, viewed, cast members, category(ies), language, video format, start and end time, date, re-run indicator, stereo indicator, close-captioned indicator, and other information.

[315] Claims 90 and 91 are both dependent method claims. Claim 90 depends on Claim 89, which itself depends on Claim 88 (an independent claim). Claim 91 depends on Claim 90.

> 88. A method in which programs and associated program data are displayed for users by an interactive television program guide implemented on user television equipment, comprising the steps of:
>
> digitally storing the programs and associated program data using the interactive television program guide in response to receiving a user request to digitally store the programs; and
>
> maintaining a directory of the digitally stored associated program data using the interactive television program guide.
>
> 89. The method define in claim 88 further comprising the step of displaying a directory listing screen on the user television equipment using the interactive television program guide.
>
> 90. The method defined in claim 89 further comprising the steps of:
>
> indicating directory entry information;

providing a user with an opportunity to select directory entry information; and

displaying a full entry information screen in response to the selection by a user of directory information.

91. The method defined in claim 90 further comprising the step of displaying a plurality of fields of directory entry information selected from the group consisting of: title, description, episode, channel, duration, viewed, cast members, category(ies), language, video format, start and end time, date, re-run indicator, stereo indicator, close-captioned indicator, and other information.

[316] The parties agree there are six essential elements in the 629 Claims:

i. Element 1: An EPG implemented on the user's television equipment that can be used to record programs digitally.

ii. Element 2: Digitally storing programs.

iii. Element 3: Digitally storing associated program data.

iv. Element 4: Maintaining a directory of the associated program data using the EPG.

v. Element 5: Displaying a directory listing screen on the EPG.

vi. Element 6: Displaying a full directory information screen in response to a user selection of directory information.

[317] No claim construction issues were raised by the parties in relation to the 629 Patent. Moreover, infringement of the 629 Claims are conceded in the event the claims are held to be valid. Therefore, the only issue to be determined is whether the 629 Claims are valid.

A. *Validity*

[318] The Defendants submit that the 629 Claims are invalid because they are anticipated by Florin, and obvious in light of the CGK alone, or any combination of the CGK, Florin, Browne, and/or DAVIC 1.3.1.

1. Anticipation

[319] Subsection 28.2(1) of the *Patent Act* requires claimed subject-matter to be new.

[320] There are two separate requirements to show that prior art anticipates a claimed invention: there must be a prior disclosure of the claimed subject-matter and the prior disclosure must enable the claimed subject-matter to be practised by a skilled person: *Sanofi–Synthelabo* at paras 24–29, 49.

[321] The Defendants submit that Florin discloses and enables all six elements of the 629 Asserted Claims.

(a) Prior disclosure

[322] There is no dispute that Florin discloses the use of an EPG/IPG to record and store programs digitally, and to display a directory listing screen as well as a directory of program listings. However, Rovi argues that the invention of the 629 Patent is not disclosed by Florin, as Florin does not disclose a "means for maintaining a directory of the digitally stored associated program data using the interactive television program guide." More particularly, it claims that Florin does not disclose a list of programs recorded by the user "being maintained (updated) as recordings are deleted or otherwise changed."

[323] The dispute between the parties revolved around the question whether "maintaining a directory" entails not just adding listings when a recording is made, but also requires deleting listings and otherwise maintaining the list if there are modifications to the recordings.

[324] In his validity report, Mr. Kerr states that the Skilled Person would understand the term "maintaining a directory" as used in the 629 Claims to mean "creating a directory of the stored associated program data and keeping it up to date, including by adding, deleting or editing entries." In his responding report, Mr. Wahlers did not take issue with Mr. Kerr's construction.

[325] Rovi submits that Mr. Kerr provided no evidence to support his statement in his reports that Florin discloses a directory of recorded programs which it maintains. I disagree.

[326] In Florin, the Field of the Invention is described as follows:

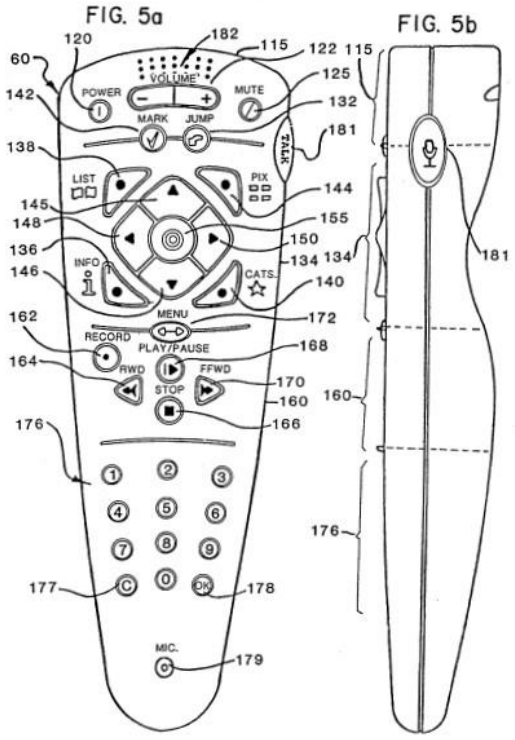
> The present invention relates to the field of audio-visual systems. More specifically, the present invention relates to a system for selectively viewing and interacting with programs and services from a number of program/service sources, a control device for

> controlling the system, and the methods and apparatus incorporated in the system for managing selection, viewing and interacting with the program/service offerings.

[327] Florin discloses an interactive television system wherein the service provider transmits digital television channels, interactive content, and digital program listings data to users. The program listings data includes “associated program data” such as titles, program times, categories, channel numbers, and other associated information.

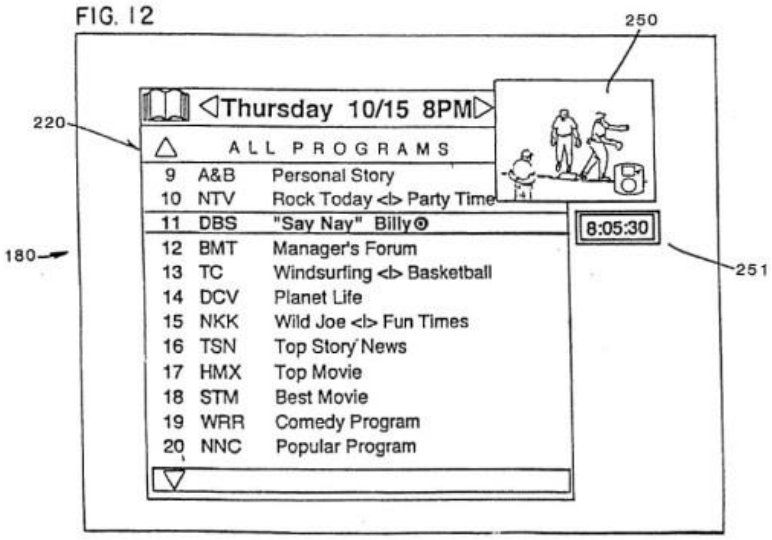
[328] Florin describes a method for selecting and displaying broadcast programs using an EPG and storing broadcast programs and program information on a local storage device (VCR or hard disk). It also describes the ability to obtain program information using a remote control with a “list” button and an “info” button.

[329] Figs. 5a and 5b of Florin below illustrate an embodiment of the remote control device.



[330] As can be seen from the above illustration, the remote control has an “info” button by which one can press and see information about a program, a “record” button that one can use to record programs to a digital storage device, and a “list” button by which one can press and get a listing of programs that are on the directory.

[331] Fig. 12 of Florin illustrates the invention's use of the list function to display current program/service listings and to highlight a particular program.



[332] Mr. Kerr noted that Florin describes two functions that necessarily require the STB to store a directory of associated program data for recorded programs. First, the recorded program list function allows the user to view a list of recordings on the recording device.

> It is also contemplated that this list function can be used with audio-visual programs or services other than TV programs, in particular when the menu button 172 is used to display the output of other A/V devices 57. For example, if the VCR 56 is displayed on the TV 58, pressing the list button 138 on the remote control device 60 would display a listing of all programs recorded by the user on the VCR 56, highlighting the program now displayed from the VCR 56. Similarly, the list function would display CD ROM or telephone listings when these A/V devices are selected through the menu function.

[333] Second, the category sort function allows the user to find all recorded programs within a particular category.

[334] Mr. Kerr explained that the two above functions require the digital storage device to maintain a directory of associated program data, otherwise they would not work. He concluded

that Florin accordingly discloses a means for maintaining a directory of the associated program data (including at least title and category/genre data) using the EPG.

[335] Mr. Kerr's evidence was not shaken when pressed in cross-examination on this point.

> Q. So pressing the list button when you're -- I just want to use their language. Pressing the list button when the VCR is displayed allows the user to access a list of VCR recordings, correct?
>
> A. That's what it says.
>
> Q. This doesn't refer, then, to entries being deleted if recordings are deleted, correct?
>
> A. It doesn't state it, but the skilled person at the time of 1996, actually a lot earlier, and certainly by July 1998, if there are deletions going on, you can't use such a list. It has no value if you're not removing items when things are deleted; if you are not adding items when things are recorded; if you're not changing titles if they need to be changed. As I said in the claim construction which you quoted just a moment ago, it's for maintaining the directory of associated data it includes.
>
> Q. Right. And so that was your construction of the 629 Patent element?
>
> A. Yes.
>
> Q. Maintaining includes editing -- and I don't want to misstate you -- adding, deleting or editing entries, correct?
>
> A. Yes, and the key thing here is you only need to do those when you need to do them. There's an "or" in that. If I have a tape which is new and I record two programs on it, I am maintaining that database or directory, whatever we're calling it, when I add the new program associated data or title, whatever we're going to call it. That is maintaining. I don't have to have done a deletion or a modification before I can say I am maintaining. I am maintaining the database when I just add something to it because I have added a new program to this, in particular the VCR tape or to any other audio-visual device, some sort of file or whatever it is. The concept of maintaining a directory had been around for a very long time. I don't think Florin is producing anything new here at all. Florin states, as far as I'm concerned, you have this listing, but the skilled

> person would know, well, of course you're going to look after the listing. If you are on a personal computer, if you're on a Mac, if you delete a file, you expect it to be removed from the listing; if you add a file, you expect that to appear on the file listing. It's just what the skilled person would assume in my opinion.

[336] Rovi submits that Mr. Kerr admitted in cross-examination that the recording systems at the time did not maintain lists electronically. It fails to point out that Mr. Kerr was referring to VCR-based systems that pre-dated Florin.

[337] Mr. Kerr made it clear that the concept of maintaining a list was not new and explained why he considered the concept to be disclosed in Florin.

> A. If we now go back to what I just quoted, column 9 in Florin, and we go to line 65 in column 9, it says:
>
> "The non-volatile part of system memory 65 also includes rewritable memory (such as SRAM) which is used for persistent storage of mark or record indicators, listings of programs viewed or taped, and other user preferences."
>
> In my opinion what Florin is saying here is that the listings of the programs viewed or taped is within this non-volatile system memory 65, and the skilled person would assume and would consider, as part of having a listing, the maintenance of that list. Otherwise, just like the paper system my wife and I had, it would have no value if it was always wrong.

[338] At paragraph 76 of his validity report, Mr. Wahlers argues that Florin does not disclose a list of programs recorded by the user "being maintained (updated) as programs are deleted as required by the 629 Asserted Claims." (My emphasis). However, there is nothing about the language of the 629 Claims that imposes such a requirement.

[339] Later in his report, Mr. Wahlers uses language cribbed from paragraphs 64 of Dr. Balakrishnan's report (highlighted in green below) in an attempt to explain his position.

Responding Expert Report of **Timothy Wahlers** on Validity (Canadian Patent No. 2,339,629) dated **April 3, 2020**, para. 85

85. Florin does not disclose a list of programs recorded by the user being maintained (updated) as programs are deleted. Florin states that the "remote control device would display a listing of all programs recorded by the user on the VCR" (Florin, 16: 44-45). It is not clear if the listing displayed is the list of the programs on the specific VCR tape that is in the VCR when the remote control is used to display the listing, or a complete list of all programs that have been recorded to any VCR taps. In any event, Florin does not disclose a directory of program data using an IPG, and more notably, the maintaining (or updating) of the directory required by element 4 is not disclosed.

Responding Expert Report of **Dr. Ravin Balakrishnan** on Validity (Dated **January 20, 2020**), paras. 64-65

64. The 629 Claims require "means for maintaining a directory of the digitally stored associated program data using the interactive television program guide." This element is not disclosed by Florin. There is no disclosure in Florin about a list of programs recorded by the user being maintained (updated) as programs are deleted.

65. Florin is focussed primarily on VCR tapes as the recording medium. Florin states that the "remote control device would display a listing of all programs recorded by the user on the VCR" (Florin, col. 16, ln. 44-45). It is not clear if the listing displayed is the list of the programs on the specific VCR tape that is in the VCR when the remote control is used to display the listing, or a complete list of all programs that have been recorded. The term "interactive program guide" ("IPG") in the 629 Claims does not refer to just any user interface. The IPG must receive program information about upcoming programs, allow the user to navigate through that program information, and make decisions about what to watch and/or record. The presence of the "remote control device would display a listing of all programs recorded by the user on the VCR" (Florin, col. 16, ln. 44-45) does not imply that there is a fully functioning IPG running on the VCR, nor is there any guidance to the skilled person to add an IPG to the VCR.

[340] At trial, Mr. Wahlers testified that there is "passing reference to storage of a hard drive (in Florin), but the focus is almost totally on the VCR storage." While Mr. Wahlers agreed that hard-disk drives are typical digital storage devices and were well known in the home computing field, he stated that they were not well known in the television industry. He then suggested that the implementation of data storage and retrieval on an analog VCR tape is very different than data storage and retrieval using digital media, such as CDs and hard disks.

[341] In my view, Mr. Wahlers' analysis of Element 4 is disjointed and unintelligible. First, Mr. Wahlers does not explain on what basis the Skilled Person would understand the 629 Claims as requiring deletions. Second, his opinion is based on the false premise that Florin is focussed on VCRs, which is simply not the case. Florin clearly describes using VCRs "or other A/V

recording devices," such as hard disks, to digitally store programs. Mr. Wahlers ultimately conceded this point in cross-examination.

[342] I prefer the cogent opinion provided by Mr. Kerr that, from the perspective of the Skilled Person, maintaining a directory includes updating a directory as programs are added, and that this is explicitly described in Florin.

[343] In the circumstances, I find that Florin discloses Element 4 of the 629 Claims.

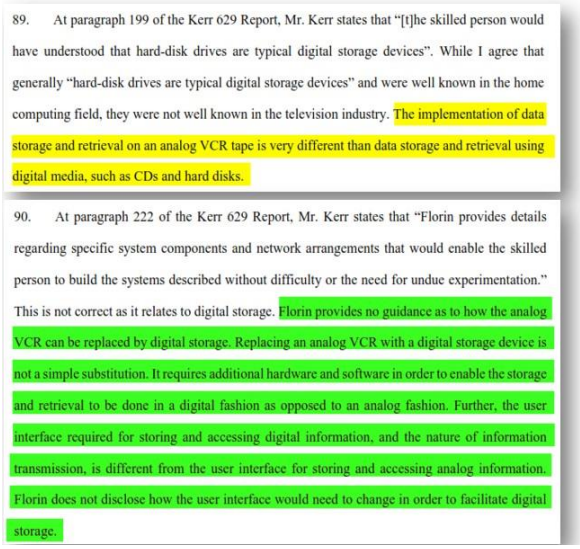
(b) Enablement

[344] The requirement of enablement "means that the person skilled in the art would have been able to perform the invention": *Sanofi-Synthelabo* at para 26. In assessing enablement, a skilled person may use their CGK to practice the disclosure as described in the anticipatory prior art.

[345] Mr. Kerr opined in his validity report that Florin enables the Skilled Person to build the system that is the subject matter of the Asserted Claims. He noted that by September 1998, EPGs were well-known and in use. More specifically, the use of EPGs to control recording devices was known, and the Skilled Person would have known how to put such EPGs into use. According to Mr. Kerr, Florin provides details regarding specific system components and network arrangements that would enable the Skilled Person to build the systems described without difficulty or the need for undue experimentation.

[346] Rovi argues that Florin is not enabling because it does not provide any detail as to how a digital storage device may be incorporated into the system disclosed. Rovi relies on the opinion expressed by Mr. Wahlers' at paragraphs 89 and 90 of his validity report for this proposition, which in turn is pulled from paragraph 68 of Dr. Balakrishnan's report.

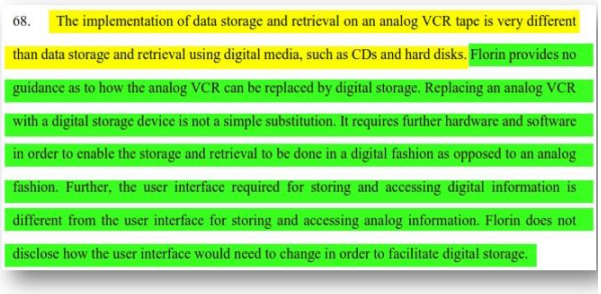
Responding Expert Report of **Timothy Wahlers** on Validity (Canadian Patent No. 2,339,629) dated **April 3, 2020**, paras. 89-90



89. At paragraph 199 of the Kerr 629 Report, Mr. Kerr states that "[t]he skilled person would have understood that hard-disk drives are typical digital storage devices". While I agree that generally "hard-disk drives are typical digital storage devices" and were well known in the home computing field, they were not well known in the television industry. The implementation of data storage and retrieval on an analog VCR tape is very different than data storage and retrieval using digital media, such as CDs and hard disks.

90. At paragraph 222 of the Kerr 629 Report, Mr. Kerr states that "Florin provides details regarding specific system components and network arrangements that would enable the skilled person to build the systems described without difficulty or the need for undue experimentation." This is not correct as it relates to digital storage. Florin provides no guidance as to how the analog VCR can be replaced by digital storage. Replacing an analog VCR with a digital storage device is not a simple substitution. It requires additional hardware and software in order to enable the storage and retrieval to be done in a digital fashion as opposed to an analog fashion. Further, the user interface required for storing and accessing digital information, and the nature of information transmission, is different from the user interface for storing and accessing analog information. Florin does not disclose how the user interface would need to change in order to facilitate digital storage.

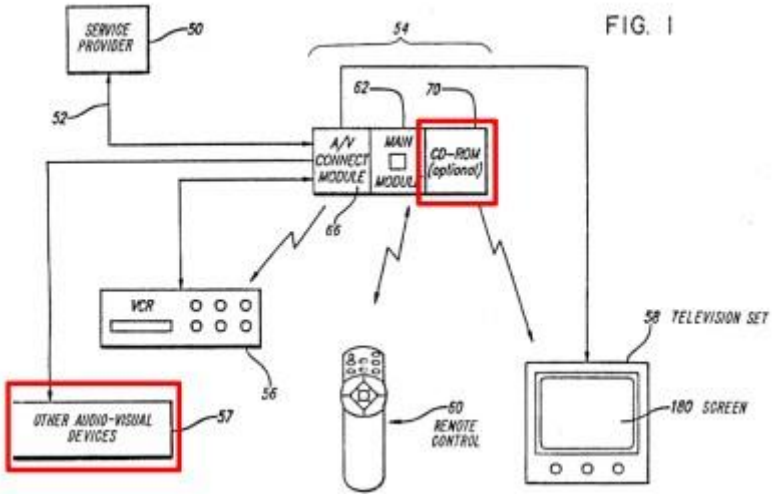
Responding Expert Report of **Dr. Ravin Balakrishnan** on Validity (Dated **January 20, 2020**), para. 68



68. The implementation of data storage and retrieval on an analog VCR tape is very different than data storage and retrieval using digital media, such as CDs and hard disks. Florin provides no guidance as to how the analog VCR can be replaced by digital storage. Replacing an analog VCR with a digital storage device is not a simple substitution. It requires further hardware and software in order to enable the storage and retrieval to be done in a digital fashion as opposed to an analog fashion. Further, the user interface required for storing and accessing digital information is different from the user interface for storing and accessing analog information. Florin does not disclose how the user interface would need to change in order to facilitate digital storage.

[347] Mr. Kerr delivered a reply report expressing surprise that Mr. Wahlers would take such a position. According to Mr. Kerr, the Florin specification provides at least as much detail as the 629 Patent about how to implement a digital storage device, including the types of digital storage devices that can be used, how the digital storage devices can be incorporated into the system and the types of functions the digital storage devices can perform. He went on to explain that Florin provides significant detail as to how a digital storage device may be incorporated, including how such a device could be "dropped in" and configured to work in the Florin system for use as a digital storage device without undue experimentation to do precisely what Florin describes.

[348] Figure 1 of Florin below depicts where Mr. Kerr considers the device [box 70 in red] would be located in the system.



[349] Mr. Wahlers completely gave up this point in cross-examination and agreed that the Skilled Person would know how to use a digital storage device to record broadcast programs.

> Q. So the inventors are telling us that a person of skill in the art can use a digital storage device like a recordable DVD or hard disk to record broadcast television by connecting the device to a set-top box using an appropriate interface, correct?
>
> A. Yes.
>
> Q. And that is something that the skilled person would have known how to do in September 1998 yes?
>
> A. Yes.

[350] Based on the evidence before me, I am satisfied that Florin enables all essential elements of the 629 Claims.

[351] Parenthetically, were to find that Florin does not provide sufficient disclosure on how to incorporate digital storage device into the system, the 629 Patent itself would be insufficient as it provides far less disclosure to allow the Skilled Person to work the invention.

[352] For the above reasons, I conclude that the Defendants have satisfied their burden of proof of establishing that all of the 629 Claims are anticipated and therefore invalid.

2. Obviousness

[353] If I am incorrect in my anticipation analysis, I would find the 629 Claims to be obvious and invalid.

[354] The obviousness test is flexible and must be applied contextually to the facts and circumstances of each claim. Each claim is evaluated against the four-part *Sanofi-Synthelabo* test. As the parties have conducted their obviousness analysis by evaluating the claims globally, I will do the same.

(a) Stage 1: Identify the Skilled Person and the CGK

[355] The identity and credentials of the Skilled Person have already been described earlier in these reasons.

[356] It is well established that the CGK is limited to knowledge which is generally known at the relevant time by skilled persons in the field of art or science to which the patent relates. There is very little disagreement between the parties as to the CGK to be taken into account in

conducting the obviousness analysis. Only relevant portions thereof are reproduced below to place my analysis in proper context.

[357] As stated early in these reasons, IPGs were CGK by the mid-1990s. The 629 Patent itself admits that they were CGK.

> Recently, interactive program guides have been developed that allow for storage of programs selected within the program guide on an independent storage device, typically a videocassette recorder.

[358] By mid-1998, hard-disk drives of sufficient capacity and performance were becoming available at acceptable costs to develop mass consumer devices that would allow the recording and storing of many hours of television content. The increasing availability of reasonably priced digital storage was known in the industry.

[359] The State of the Art of the 629 Asserted Claims included the teachings in Florin and Browne and all of the details in DAVIC 1.3.1.

[360] While the Skilled Person would not have known by memory the specific, low-level detailed technical descriptions set out in the DAVIC specifications, by the March 1998 publication of DAVIC 1.3.1, the Skilled Person's CGK comprised of high-level concepts. These included home networking, distributed systems, use of analog and digital storage devices inside and outside the user's home; use of EPGs to view program schedule information, and select a program for viewing or recording from multiple Service Providers and/or multiple Content Providers; and use of EPGs to view additional information about programs, whether recorded or scheduled.

(b) Stage 2: The Inventive Concept

[361] The experts agree that the inventive concept of the 629 Patent is the same six elements identified in the anticipation analysis.

(c) Stage 3: Difference between the State of the Art and the Inventive Concept

[362] At step 3 of the obviousness analysis, the inventive concept of the six elements is compared to the state of the art to identify what, if any, differences exist. Novelty should be determined relative to the prior art since it comprises all of what has been done before. The common general knowledge is merely a subset of the prior art: *Ciba Specialty Chemicals Water Treatments Limited's v SNF Inc*, 2017 FCA 225 at para 50.

[363] The only difference identified by Rovi between the prior art and the system of the 629 Claims is Element 4 "maintaining a directory of the associated program data using the EPG," which it says required inventiveness. According to Rovi, the Skilled Person without a scintilla of inventiveness reading Florin, Browne, or DAVIC would not have come to this particular system for maintaining a recording directory.

[364] The Defendants submit that there were no differences between the state of the art, the CGK and the 629 Claims. They say that even if there were such differences, they were minor and did not require any degree of invention.

[365] Based on the evidence before me, I find that the concepts of recording broadcast programs to a digital recorder, maintaining a directory of those programs, and displaying information about those programs were all known and obvious to the Skilled Person as of the priority date of the 629 Patent, September 17, 1998. The Skilled Person was by that time aware of TiVo's plans to launch an actual device capable of doing precisely that. Mr. Wahlers acknowledged the Skilled Person "working in the television interactive space in mid 1998 with their common general knowledge would certainly know and understand how to deliver and store associated program data in a television system."

[366] I agree with Mr. Kerr's that it was obvious based on the CGK alone and not inventive that when recording programs to a hard drive, a directory of those recordings would have to be maintained. This concept, coming from the computer field, was old. It is only common sense that digital data had to be maintained to be useful, as succinctly stated by Mr. Kerr in examination-in-chief.

> A…Where a user wants to view a listing of recordings on the recording device, whatever it is, it means that the user television equipment or set-top box or whatever, or transceiver, whichever word we want to use, has to maintain a simple database of all this associated program data so at least the title information for recording programs. If you don't maintain a list, then you will not be able to find the programs you have recorded. So it's a pretty straightforward requirement there, that there is some simple directory of what is being recorded. Furthermore, when you record something new, you need to add that to the list so the list remains accurate, otherwise you cannot find the programs you want with a list that is out of date.

[367] Alternatively, I find that the 629 Claims were obvious in light of Florin together with the CGK. Florin describes using an EPG to record programs to a digital recorder, to maintain a

directory of those recorded programs and to display information about those programs. I agree with the Defendants that there are no differences between Florin and the inventive concept of the 629 Patent.

(d) Stage 4: Whether the differences constitute steps which would have been obvious to the Skilled Person

[368] While there is no need to proceed to stage 4 of the *Sanofi-Synthelabo* test, I wish that add that even if Element 4 was not disclosed in Florin, on the evidence before me, I find that it would not have required inventive ingenuity for the Skilled Person to conclude that the directory of programs stored on the hard drive should be updated as programs are added and deleted. As Mr. Kerr explained, the Skilled Person would understand that storage space on the digital storage in the STB is limited, and the directory would also have to be maintained by removing entries when they are no longer needed. This was CGK.

[369] Accordingly, I find that the Defendants have established, on the balance of probabilities, that the 629 Claims would have been obvious in light of the CGK alone, or Florin together with the CGK.

[370] In the further alternative, the Defendants submit that there is no inventive ingenuity between Browne and the 629 Patent.

[371] Browne teaches the ability to record multiple broadcast programs, simultaneously, to a digital recording device. Mr. Wahlers conceded this on cross-examination.

[372] Rovi claims that Browne does not teach an IPG or how to incorporate digital storage into the system disclosed. However, Browne does teach a “user control section” or “graphical interface” that a user can operate to control the recording device (e.g., to select programs, channels, and recording times, and to erase recordings). It was not inventive to substitute an IPG for the user interface described in Browne. By mid-1998, IPGs were CGK and the Skilled Person knew how to integrate an IPG into an interactive television system that allows users to store programs on an independent storage device.

[373] Moreover, by mid-1998, the Skilled Person knew how to maintain a directory of program listing information and associated program data on a digital recording device and it was not inventive to have directory information for digitally stored information.

[374] The only difference between Browne and the inventive concept/subject matter of the 629 Claims is the implementation of the “full directory information screen.” While Browne displays data associated with recorded programs in a single directory listing screen, the 629 Patent requires the user to select individual entries to view additional related program information. However, this is not a novel element and would be easily bridged by the Skilled Person with the CGK alone.

[375] Therefore, I find that the 629 Claims would also have been obvious in light of Browne together with the CGK.

[376] For all the above reasons, I conclude that the 629 Claims are obvious and invalid.

XVIII. The 585 Patent

[377] The 585 Patent was filed on January 30, 2004. It claims priority to US Application No. 10/357,001 filed on January 30, 2003.

[378] The 585 Patent is titled, "Interactive Television Systems with Digital Video Recording and Adjustable Reminders." It relates to operator-initiated recordings and the ability to restart a program that a user is currently watching or a program that had previously been broadcast.

A. *The 585 Claims*

[379] There are four claims at issue in the 585 Patent – Claims 34, 36, 87 and 127. They include both system and method claims.

[380] Claims 34 and 36 depend on Claim 33, an independent claim. The three claims are reproduced below.

> 33. A method of providing a plurality of users access to recordings of a plurality of broadcast television programs having scheduled start-times and end-times, wherein the plurality of broadcast television programs are broadcast to the users, the method comprising:
>
> selectively recording, based on retention criteria, a subset of the plurality of broadcast programs on storage of a server remote to the users;
>
> providing a first user of the plurality of users at a first user device with access to at least a portion of a first recorded broadcast program during a retention-period; and
>
> removing the recorded first broadcast program from the storage at the end of the retention-period.

> 34. The method of claim 33, further comprising:
>
> tuning the first user device to the first broadcast program at a tune-time, wherein the tune-time is after the scheduled start-time of the first broadcast program;
>
> determining that the start-time of the first broadcast program has elapsed; and
>
> in response to determining, accessing the portion of the recorded first broadcast program provided by the remote server at the first user device, wherein the portion corresponds to a portion of the first broadcast program that was broadcasted by the facility prior to the tune-time.
>
> 36. The method of claim 33, further comprising:
>
> receiving a request, at the remote server, from the first user device to access the recorded first broadcast program; and
>
> transmitting the portion of the recorded first broadcast program from the remote server to the first user device upon receiving the request.

[381] Claim 87 depends on Claim 85, also an independent claim. Claims 85 and 87 are reproduced below.

> 85. A system comprising:
>
> a server remote to the users configured to:
>
> selectively record, without user interaction, a broadcast program on a storage device of a server remote to a user equipment device, wherein:
>
> the broadcast program is selectively recorded based on a criteria determined by the server, and
>
> the user equipment device can access the broadcast program that has been selectively recorded.
>
> 87. The system of claim 85, wherein the recorded broadcast program is only accessible by the user equipment device during a predefined access-period.

[382] Claim 127 depends on Claim 125, an independent claim. The two claims read as follows.

> 125. A method comprising:
>
> automatically storing only some of a plurality of broadcast programs on a storage device of a server remote to a plurality of user equipment devices;
>
> enabling the plurality of user equipment devices to access the server such that a plurality of users can access the broadcast programs that have been stored; and
>
> removing a first broadcast program of the stored broadcast programs from storage at the end of a predetermined period of time.
>
> 127. The method of claim 125, wherein each stored broadcast program is only accessible by the plurality of user equipment devices during a predefined access-period.

B. *Essential Elements of the 585 Claims*

[383] The experts generally agree that there are nine essential elements of the 585 Claims.

[384] Claims 34 and 36 both depend on Claim 33. The essential elements of Claim 33 are:

> Element 1: Providing users access to recordings of broadcast television programs having scheduled start-times and end-times;
>
> Element 2: Selectively recording, based on retention criteria, a subset of the plurality of broadcast programs on storage of a server remote to the users;
>
> Element 3: Providing a first user with access to at least a portion of a first recorded broadcast program during a retention-period; and
>
> Element 4: Removing the recorded first broadcast program at the end of the retention-period.

[385] Claim 34 depends on Claim 33, and adds the following elements:

> Element 5: Tuning the first user device to the first broadcast program at a tune-time, wherein the tune-time is after the scheduled start-time of the first broadcast program;
>
> Element 6: Determining that the start-time of the first broadcast program has elapsed; and
>
> Element 7: In response to determining, accessing the portion of the recorded first broadcast program provided by the remote server at the first user device, wherein the portion corresponds to a portion of the first broadcast program that was broadcasted by the facility prior to the tune-time;

[386] Claim 36 also depends on Claim 33 and only adds the following elements:

> Element 8: Receiving a request to access the recorded first broadcast program; and
>
> Element 9: Transmitting the portion of the recorded first broadcast program upon receiving the request.

[387] Both parties agree that Claim 87 (which depends on Claim 85) has the same essential elements as Claim 33, but Claim 87 is a system claim, whereas Claim 33 is a method claim.

[388] Both parties also agree that Claim 127 (which depends on Claim 125) has the same essential elements as Claims 33 and 87. While Claim 127 uses the word "access-period," as opposed to "retention period" (as found in Claim 33), the Skilled Person would understand that there is no difference between an "access-period" and a "retention-period."

C. *Claim Construction*

[389] The only claim construction dispute between the experts revolves around the meaning of the element "in response to determining, accessing the portion" in Claim 34. The dispute boils

down the meaning of “accessing,” the progressive tense of the verb “access.” The claim is construed as of August 12, 2004, the publication date of the 585 Patent.

[390] In his infringement report, Mr. Wahlers broke down the element “in response to determining, accessing the portion” into two components. He construed “determining that the start-time of the first broadcast program has elapsed” as meaning “the system determines that the tune-time is after the start-time.” He then construed “accessing” as “establishing a connection or querying a signal to confirm the connection is available (e.g., pinging) between the first user device and the server where the first program is stored.”

[391] At paras 46-47 of his validity report, Dr. Robinson construed the element “in response to determining, accessing the portion” as requiring the system to automatically start a program from the beginning when the users selects it from the IPG. The Defendants refer to the element as the “Automatic Determining Element.” Rather than paraphrase how Dr. Robinson reached his opinion, I reproduce it below.

> 46. A key element of claim 34 is the “determining” element, which is not included in claims 29 or 33. The 585 Patent does not define the term “determining” or explain how it is accomplished, or who (or what) is doing the “determining”. However, claim 34 does not identify a user interaction in relation to automatically accessing the portion of the missed broadcast program. Furthermore, claim 34 does not describe a user choice as to whether the earlier portion of the program is accessed in response to the “determining”. Instead, claim 34 requires “accessing” the earlier portion “in response to determining”. The accessing automatically follows the determination.
>
> 47. In my opinion, the Skilled Person would understand from claim 34 that when the user tunes to a particular program after it has already started, the system (or, user device independent of a user interaction) determines that the start-time of the broadcast program has elapsed, and then the system accesses the missed portion of the

> broadcast from the remote server. The system accesses the missed portion without requiring a user interaction as none is indicated.

[392] I note in passing that Dr. Robinson offered an alternative opinion while addressing the issue of anticipation.

> 59. I have been asked to consider whether the subject matter of the Asserted Claims of the 585 Patent was both disclosed and enabled as of January 30, 2003. In my opinion, Minerva and iMagic, two of the patents I found in my prior art search, each disclose and enable all of the Asserted Claims except claims 34, 89, 128 and 129 based on my construction of the "determining element".
>
> 60. That said, if I am incorrect that the term "determining" means automatically accessing, transmitting or providing the missed portion of the broadcast program without user interaction and instead gives the user the option of accessing or receiving the portion of the broadcast program that is missed, then claims 34, 89, 128 and 129 are also disclosed and enabled by iMagic and Minerva for the reasons described below. (His emphasis)

[393] In his responding validity report, Mr. Wahlers disagrees with Dr. Robinson's construction noting that Dr. Robinson uses the term "accessing" interchangeably with "transmission." Mr. Wahlers opines that the term "accessing" includes the step prior to transmission, which is establishing a connection in anticipation that a playback request may be received. Mr. Wahlers also notes that if "accessing" did include the transmission and playback of a program, every time a channel is selected, the system would immediately start playing the program from the beginning rather than from tune-time. In his view, the Skilled Person would understand that this type of behaviour would be both undesirable for the user experience and result in a significant consumption of resources from frequently switching between broadcast and streaming.

[394] In summary, Mr. Wahlers construes the term “accessing” to mean establishing a connection in preparation for transmission, while Dr. Robinson construes the term in the context of Claim 34 to mean transmitting the missed portion of the program automatically upon tuning.

[395] Having carefully considering the experts’ evidence, I find that Mr. Wahlers’ construction of the element should prevail for the following reasons.

[396] First, Mr. Wahlers’ construction is consistent with the plain meaning of the term. The *Oxford English Dictionary* (online) defines the verb “access” in the computing field, as “to obtain or retrieve (data or a file); to gain access to (a system or network).” Similarly, the *Collins Dictionary* (online) defines “access” as “succeed in finding or obtaining [information held on a computer]” (*Collins Dictionary* (online)).

[397] Second, other claims and the specification of the 585 Patent give context to this claim language. Every time the verb “access” appears in the patent (and it appears many times), it is used in the ordinary way (i.e., “to obtain” or “provide access to”). By way of example, Claim 36 describes two steps: (1) “access the recorded first broadcast program”; and (2) “transmitting the portion of the recorded first broadcast program.” In using two different terms, “access” and “transmitting” in reference to recorded programs, the inventors must have meant to refer to two different actions or steps, with the former preceding the latter.

[398] Third, I am particularly persuaded by the argument that the Skilled Person reading Claim 34 would consider requiring the system to automatically start a program from the beginning

when the user selects it from the IPG to be undesirable from the user's perspective. This would result in significant and unnecessary consumption of resources, which is inconsistent with one of the goals of the 585 Patent, which is to "use network or local storage efficiently." It is a general principle of construction that where there is a choice between two meanings, one should, if possible, reject that meaning which leads to an absurd result: *Henriksen v Tallon Ltd*, (1965) RPC 434 at p 443.

D. *Validity*

[399] The Defendants submit that the inventive concept of the 585 Claims was old, or otherwise obvious based on: (1) the CGK alone; (2) each of iMagic and Minerva alone; (3) any combination of iMagic and Minerva, the CGK, the Oracle Patent,[12] the Oracle White Paper,[13] and the Microsoft Patent.

(a) Anticipation

[400] Rovi refers to the 585 Patent as the "Restart" patent. Mr. Wahlers describes the subject matter of the 585 Patent as "the ability to go back in time and play videos within the near history, such as a day or a week." Rovi claims that the 585 Patent encompasses features that now, with the benefit of hindsight, seem straightforward but were pioneering at the time.

---

[12] US Patent No. 6,138,147, "Method and Apparatus for Implementing Seamless Playback of Continuous Media Feeds", FC194, Exhibit 73; Robinson 585 Report 73, at paras. 227-232.
[13] "Real-Time Encoding and Feeds in Oracle Video Server: An Oracle White Paper", Robert Ash, March 1998, FC193, Exhibit 73; Robinson 585 Report 73, at paras. 216-226.

[401] The Defendants acknowledge that the restart feature, which allows a user to watch a show already in progress from the beginning, even if the user forgot to set the recording on your PVR, was well received by its customers after it was deployed in their IPTV systems. In fact, the Defendants repeatedly highlighted the restart feature when promoting their services.

[402] There is no dispute that the restart feature was innovative. However, the Defendants submit that Rovi did not invent this technology. They say that it is exactly the subject matter of iMagic, a patent owned by a Canadian television company bearing the same name specializing in the development of IPTV in New Brunswick.

[403] The iMagic Patent is titled, “Digital Interactive Delivery System for TV/Multimedia/Internet with On-Demand Applications” and was published on March 29, 2002, approximately a year before the priority date of the 585 Patent.

[404] iMagic describes an IPTV system that includes various on-demand applications, each of which are accessible on an integrated IPG, and each of which use the same remote video server. Two of those on-demand applications are TimelessTV and Virtual DVR [VDVR].

[405] The TimelessTV and VDVR applications both use the same remote network video server, the Network DVR [NDVR], a component iMagic describes as “central to each of the on-demand applications.” NDVR is described in detail in the specification. The NDVR video server is located remotely to the users, and automatically captures and stores all live broadcast content from television channels in real-time.

[406] The Defendants take the position that both applications in iMagic anticipate the 585 Claims; however, for oral argument, they limited their submissions to Timeless TV. I will proceed in the same manner.

(i) Disclosure

[407] Timeless TV is patterned as a historical on non-linear program guide. For Timeless TV, one or more on-demand video servers in the network maintain a continuous recording of IP multicast broadcast content from a number of days for on-demand access by a subscriber at some user-selected finite time after the program was initially shown. The Timeless TV application uses the same continuously recorded broadcast content to enable subscribers to select a program for on-demand viewing without need to view such program at the scheduled broadcast time for such viewing.

[408] For the Timeless TV application, network video servers record all or most broadcast content from a selected set of broadcast sources (stations) and the recorded programs are made available to users using a historical IPG. An example is shown in Figure 6 of the iMagic Patent:

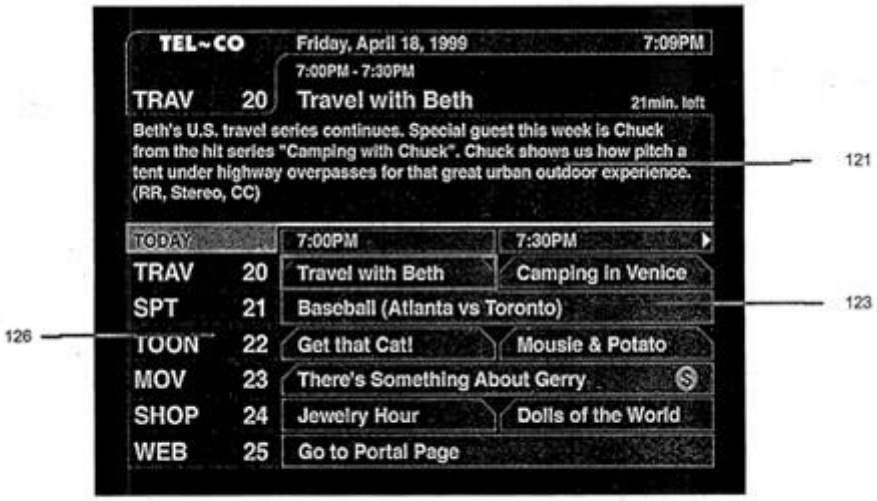


Fig.6

[409] In Figure 6, the IPG shows that the current time is 7:09 PM. If the user pressed the left arrow button on their remote, they could scroll back to 6:30 PM (or earlier) and select any previously aired program they wanted to watch, so long as it was recorded by the remote video server within the service window (e.g. iMagic provides 7 days as an example). When the service window expires, the remote video server's circular buffer overwrites the program with new content. The programs are retained and accessible to users until they are overwritten.

[410] Timeless TV subscribers are thereby enabled to view any previously aired program, provided that the program was recorded within the particular service window which has been implemented by the service provider.

[411] A NDVR application is central to each of the on-demand applications. The NDVR captures the broadcast video content in real-time by selecting a number (e.g. up to 100) of concurrent multicast stations according to a recording schedule determined by the service-

provider. The number of days that recorded content is retained and available for playback is referred to hereinafter as the "service window."

[412] I pause here to mention that my analysis of the validity issues was greatly assisted by the Defendants' written representations, and more particularly by the outlines prepared by the Defendants of their closing arguments for each Patent that were responsive in real-time to Rovi's arguments. The outlines included useful pinpoint references to relevant extracts from the expert reports, exhibits and transcript evidence. In contrast, Rovi's closing submissions relied primarily on the evidence that counsel curated in Mr. Wahlers' expert report prior to trial and from his evidence in chief, much of which was discredited in cross-examination.

[413] I had great difficulty with Mr. Wahlers' evidence, particularly as it relates to the validity of the 585 Patent. He took astonishing positions in his reports on the 585 Patent and continued to maintain those positions at trial, only to give them up without a fight in cross-examination.

[414] During his cross-examination, Mr. Wahlers would obfuscate as he attempted to defend utterly indefensible positions – like his contention that the iMagic patent does not disclose "operator-initiated recordings" when it plainly does, or that Timeless TV is mentioned in the iMagic patent "only in passing" when it clearly is not. Another glaring example is Mr. Wahlers' bald assertion in his validity report that the Skilled Person would not have known to combine iMagic with the Oracle Video Server [OVS], when the OVS is not only described, but is also the preferred server in iMagic.

[415] When pressed on cross-examination, Mr. Wahlers ultimately conceded on virtually every key validity opinion he gave in his reports. Mr. Wahler's cross-examination is replete with numerous examples of his inability or willingness to provide evidence from the perspective of the Skilled Person with a mind willing to understand. His sometimes incoherent and contradictory responses during cross-examination bring into question whether Mr. Wahlers actually read iMagic before he signed his report or knew what he was signing.

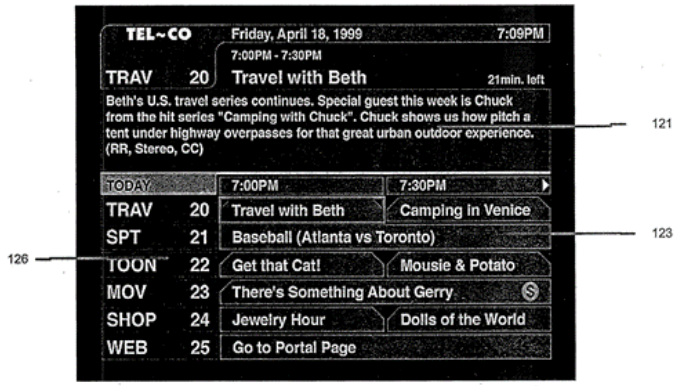
[416] Mr. Wahlers' evidence gives me great cause for concern as to its reliability and I therefore give it little to no weight, especially on validity issues.

[417] I am left with Dr. Robinson's evidence that was unshaken in cross-examination on key matters or left unchallenged.

[418] The Defendants submit that iMagic discloses each of the essential elements of the 585 Claims. They have provided a useful table correlating the elements of the 585 Claims to iMagic that is reproduced below.

Element	**Disclosure in iMagic**
Claim 33 (Not Asserted, Independent)	
Element 1: Providing users access to recordings of broadcast television programs having scheduled start-times and end-times.	This invention relates to a system for interactive on-demand delivery of multimedia using a multicast broadband backbone network transmitting IP-configured digital multimedia (e.g. television) signals…A central multimedia storage means is located within the network and remote from the subscriber for storing multimedia content. An **on-demand component is configured for receiving a deliver request from a subscriber for the stored content, for locating the requested multimedia content from the storage means and for delivering the requested multimedia content** for display on the

Element	**Disclosure in iMagic**
	television or monitor…The on-demand component receives a record request (which includes broadcast channel and time information identifying the multimedia content and may utilize the IPG) from a subscriber and stores the multimedia content in response to the record request.
Element 2: Selectively recording, based on retention criteria, a subset of the plurality of broadcast programs on storage of a server remote to the users. **Element 3:** Providing a first user with access to at least a portion of the first recorded broadcast program during a retention-period.	For the **TimelessTV application network video servers record all or most of the multicast content from a selected set of broadcast sources (i.e. stations) and the recorded programs are made available to subscribers** by extending the DVTM interactive program guide (IPG) to include historical IPG data. TimelessTV subscribers are thereby enabled to view any previously aired program, **provided that the program was recorded within the particular service window (eg, past 7 days) which has been implemented by the service provide**r…**The number of days that recorded content is retained and available for playback is referred to herein as the "service window"**.
Element 4: Removing the recorded first broadcast program at the end of the retention-period.	The number of days that recorded content is retained and available for playback is referred to herein as the "service window". Expired content may be removed when the system clock is equal to the start time of the scheduled process. Content storage is incrementally recovered by deleting expired content. **The expiry of content is determined by the date the content was recorded and the storage options specified by the service administrator**. Expired content and all references to that content (eg metadata) are deleted by the remove expired content component 123.
Claim 34 (Asserted, Dependent on Claim 33)	
Element 5: Tuning the first user device to the first broadcast program at a tune-time, wherein the tune-time is after the scheduled start-time of the first broadcast program. **Element 6:** Determining that the start-time of the first broadcast program has elapsed.	The central storage device (being remote from the subscribers) on which the recorded program is stored, and its associated software, record only one copy of a subscriber-tagged program for access by multiple users later. Multiple channels may be recorded at one time for later, on-demand play by the user. **Further, the recording is performed by the system on a "just in time" basis whereby the user is able to direct a recording after the program broadcast has commenced, up to the time the broadcast has finished, because the system automatically captures all broadcasts and decides upon**

Element	Disclosure in iMagic
Element 7: In response to determining, accessing the portion of the recorded first broadcast program provided by the remote server at the first user device, wherein the portion corresponds to a portion of the first broadcast program that was broadcasted by the facility prior to the tune-time.	**those which are to be stored to satisfy user-entered recording directives only after the broadcasting of the program has been completed.** For the TimelessTV application network video servers record all or most of the multicast content from a selected set of broadcast sources (i.e. stations) and the recorded programs are made available to subscribers by extending the DTVM interactive program guide (IPG) to include historical IPG data.  Fig.6
Claim 36 (Asserted, Dependent on Claim 33)	
Element 8: Receiving a request to access the recorded first broadcast program. **Element 9:** Transmitting the portion of the recorded first broadcast program upon receiving the request.	An on-demand component is configured for receiving a deliver request from a subscriber for the stored content, for locating the requested multimedia content from the storage means and for delivering the requested multimedia content for display on the television or monitor.
Claim 85 (Not Asserted, Independent)	
Elements 2 and 3.	See Elements 2 and 3, above.
Claim 87 (Asserted, Dependent on Claim 85)	
Elements 3 and 4.	See elements 3 and 4, above.
Claim 125 (Not Asserted, Independent)	
Elements 2, 3 and 4.	See elements 2, 3 and 4, above.

Element	**Disclosure in iMagic**
Claim 127 (Asserted, Dependent on Claim 125)	
Elements 3 and 4.	See elements 3 and 4, above.

[419] Rovi submits, as a general comment, that iMagic discloses two different applications, TimelessTV and Virtual DVR, neither of which disclose the 585 Claims. It claims that Dr. Robinson conflated these two distinct applications in his validity report in an effort to make it seem as if the 585 Claims are anticipated.

[420] At trial, Dr. Robinson acknowledged that it would not be possible for the Network DVR to support the viewing of content throughout the service window, as described in the TimelessTV application, and the deletion of unreferenced content at the same time. Mr. Wahlers stated that this conflict can only be resolved if TimelessTV and Virtual DVR are properly understood to be distinct features that operate independently from each other.

[421] When confronted with this inconsistency, Dr. Robinson agreed that his interpretation of the TimelessTV and Virtual DVR features was inconsistent with the words of iMagic and that when applying his interpretation, the explicit statement in the patent as to when programming would be deleted "does not make sense." Rather than accepting that his interpretation was wrong, Dr. Robinson instead suggested that the inventors who wrote iMagic must have made a mistake.

[422] Rovi submits that for Dr. Robinson to suggest that the prior art is incorrect in some way misunderstands his role in this litigation. It argues that this depicts an expert who is willing to say whatever necessary to maintain his opinion. I disagree.

[423] Dr. Robinson admitted in cross-examination that he mixed up the two applications in his validity report. He was defensive when confronted with the inconsistency and reluctant to agree that he was wrong. While his response may be criticized, the overall reliability of his evidence was not undermined in cross-examination.

[424] Rovi makes three arguments as to why iMagic is not a disclosure of the 585 Claims.

[425] First, Rovi claims that iMagic does not disclose "operator initiated recordings." This argument has no merit as Rovi's own expert concedes that it does.

[426] Second, Rovi argues that iMagic does not disclose accessing the missed portion by the remote server at the STB because iMagic does not permit "immediate access" to the missed portion. Once again, this argument has no merit. Mr. Wahler's conceded this point in cross-examination and confirmed that immediate access is not required by Claim 34. In the Timeless TV application, the historical program guide allows the user to tune to a broadcast program at a particular time and, if the program has already aired, the user can scroll back in the guide to access the first recorded broadcast program.

[427] Third, Rovi points out that Dr. Robinson admitted in his validity report and during his cross-examination that iMagic does not disclose or anticipate Claim 34. While I agree that an admission was made, it is important to consider the context in which it was made.

[428] Dr. Robinson states in his validity report that he was asked to consider whether the subject matter of the 585 Claims was both disclosed and enabled as of January 30, 2003. In his opinion, both Minerva and iMagic disclose and enable all of the asserted claims "except claims 34, 89, 128 and 129 based on my construction of the 'determining element'." He immediately added that if he was incorrect about the meaning of the term "determining," then "claims 34, 89, 128 and 129 are also disclosed and enabled by iMagic and Minerva." He then went on to explain in detail why.

[429] Dr. Robinson's admission that Claim 34 is not disclosed was plainly premised on a construction of the "determining" element, which he construed as automatically accessing the program – a construction that Rovi rejects. Dr. Robinson maintained his position at trial that his construction was correct; however, he was also clear that if Mr. Wahlers' construction was accepted by the Court, then his opinion regarding disclosure and enablement by iMagic and Minerva should govern.

[430] I have taken into account the exchange between Rovi's counsel and Dr. Robinson when counsel tried repeatedly to get Dr. Robinson to admit that iMagic does not disclose or enable Claim 34. In my view, Dr. Robinson was steadfast that his opinion set out in paragraph 66 of his validity report.

[431] I should add that Rovi cannot have it both ways. If it wishes to rely on Dr. Robinson's admission that Claim 34 is not disclosed in the prior art, then it must also accept the construction on which that admission was based.

[432] Based on the evidence before me, I find that the Defendants have established, on a balance of probabilities, that iMagic discloses all of the essential elements of the 585 Claims.

(ii) Enablement

[433] The experts agree that iMagic is far more technical and detailed than the 585 Patent. Dr. Robinson describes iMagic as “almost like a solution description of how to build the system” which “reads far more like a solution description than what [he] normally see[s] in a patent submission.” Mr. Wahlers agrees that “there is no question” that iMagic was “one of the most detailed patents [he has] ever read.” In 2001, iMagic had an actual product with thousands of customers.

[434] Rovi makes two arguments as to why iMagic is not enabled.

[435] First, Rovi claims that there is minimal reference to Timeless TV in iMagic’s specification. This argument is without merit. Timeless TV is referred to extensively in iMagic. It is based on NDVR which is also referred to extensively. Moreover, iMagic expressly incorporates the functionality of the OVS.

[436] Second, Rovi claims that iMagic provides very little detail regarding its implementation, particularly as it relates to the removal of recordings or accessing recordings. However, this argument ignore the evidence. Rovi's own expert testified that iMagic is very detailed and agreed in cross-examination that there is "a description of removing programs" in Timeless TV. As for accessing recordings, Mr. Wahlers conceded that "iMagic contains more information about Historical EPGs and how to access a program that had been recorded than the 585 Patent."

[437] I find it somewhat surprising that Rovi would argue that iMagic is not enabling when its own patent has no information, no disclosure and no description about how to actually do what the claims require. The 585 Patent is essentially a "paper" or "ideas" patent. As admitted by Mr. Ellis, there was no actual system or prototype that was built.

[438] For the above reasons, I find that iMagic discloses and enables all of the elements of the 585 Claims.

(b) Obviousness

[439] The Defendants argue, in the alternative, that the 585 Claims are obvious in light of the CGK alone or in combination with one or more prior art references, including iMagic, Minerva, DAVIC 1.3.1 and Microsoft. Their arguments are based on expert opinion provided by Dr. Robinson at paragraphs 174 to 273 of his validity report. At trial, Robinson was not cross-examined at all on his obviousness opinion.

[440] Rovi submits that this evidence should be disregarded entirely because it does not represent his evidence in this proceeding. Rovi points that that Dr. Robinson did not say anything during his testimony in chief about obviousness, but rather spent all of the time focussed on anticipation of the 585 Claims. Rovi complains that the Defendants still rely on the obviousness portion of Dr. Robinson's validity report in their closing submission "as if it's his evidence, even though he doesn't say one thing about it in-chief." I disagree.

[441] Dr. Robinson's validity report was filed as an exhibit at trial and received into evidence. Its admissibility was not challenged by Rovi.

[442] At paragraph 60 of his validity report, Dr. Robinson made it clear that if he was incorrect in his construction of the Automatic Determining Element, "then claims 34, 89, 128 and 129 are also disclosed and enabled by iMagic and Minerva for the reasons described below." To be clear, there is nothing untoward or unusual about an expert providing an alternate opinion.

[443] Rovi was on notice that obviousness of the 585 Claims was at issue in these proceedings. The matter was canvassed extensively by Dr. Robinson in a distinct section of his validity report. It cannot be heard to complain that the Defendants did not refer to the evidence in chief. It was already in evidence. If Rovi wished to contest the evidence, it should have done so in cross-examination.

[444] By contrast, Mr. Wahlers was challenged on all aspects of his obviousness opinion and he was unable to defend his opinion in cross-examination. In the circumstances, I prefer the evidence of Dr. Robinson where it conflicts with that of Mr. Wahlers.

(i) Stage 1: The Skilled Person and the CGK

[445] The parties agree that Skilled Person would have experience with designing IPGs and enabling their functionality, web design, video compression and delivery, and video server operations.

[446] By January of 2003, the CGK included:

(a) Interactive television systems: Many commercially available television systems had IPGs.

(b) Remote servers: (1) How to record and store, either in short-term or long-term memory, television programs on a remote server for access by groups of users. (2) How to manage limited storage and automatically remove programs after a pre-determined period of time.

(c) The high level architecture of a television network was well-known.

(d) Television systems had a “head-end” to receive all the incoming content signals via multiple sources (e.g. OTA, satellite, cable transmission and internet) and prepare them

for delivery to a subscriber's home. The sources of content would have included both on-demand content and traditional non-on-demand content. The signals were processed in the head-end and sent to a user's home over a network. In a subscriber's home there was a television or computer connected to a STB to receive the incoming television or on-demand programs.

[447] There was a great deal of development in the area of TV distribution. Television companies evolved their networks to (i) increase the number of TV channels they offered, (ii) provide VOD services, (iii) offer data and voice services, and (iv) offer interactive services through an EPG.

[448] The State of the Art included iMagic, Minerva, the Oracle White Paper and Patent, and the Microsoft Patent.

(ii) Stage 2: The Inventive Concept of the 585 Claims

[449] The experts agree that the inventive concept/subject-matter of the 585 Claims are the essential elements that are described in the anticipation analysis above.

(iii) Stage 3: Identify what, if any, differences exist between the State of the Art and the Inventive Concept

[450] Dr. Robinson opined that from the CGK, the Skilled Person understood:

A. Systems that recorded some or all broadcast programs on remote servers;

B. Users having access to recorded broadcast programs so that they could watch those programs at a time of their choosing;

C. Transmitting portions (or all of) programs to users after the programs' scheduled broadcast times;

D. Recording programs based on retention criteria (e.g. a fixed amount of time);

E. Removing recorded programs when retention periods expire to create free space.

[451] Based on the evidence before, I find that by 2003, operator-initiated recordings of television programs to a remote server for future use was well-known and in use. It was described in the Oracle White Paper, the Oracle Patent, Minerva, iMagic, and the Microsoft Patent.

1) iMagic

[452] iMagic described in detail an end-to-end system in which the operator can selectively record broadcast programs on a remote server for later viewing where users can access those programs using an IPG. Rovi has failed to identify anything inventive about the 585 Claims over iMagic, and more particularly Timeless TV. I agree with the Defendants that the subject matter is identical.

2) Oracle White Paper and Patent

[453] In the late-1990s, Oracle was a leading and well-known video server developer and manufacturer. The Skilled Person was aware of the Oracle Video Server, which was commercially released by Oracle in 1997, described in a White Paper published in 1998, and described in a Patent filed on October 22, 1997 and published on October 24, 2000, all prior to the priority date of the 585 Patent.

[454] The Oracle Video Server was a commercially available technology that service providers could plug-in to their systems. The Oracle Video Server, as described in the Oracle White Paper and the Oracle Patent, gave the operator the ability to make recordings of programs ("operator-initiated recordings"). The Oracle White Paper and the Oracle Patent make it obvious how to: (1) implement a system to record television content to a remote server based on retention criteria; (2) allow users to stream those programs to their user television equipment; and (3) automatically delete those programs from the server after a pre-determined set of time, including by overwriting content in the circular buffer.

[455] Mr. Wahlers' main criticism of the Oracle Video Server in his Report was that it did not describe how to selectively record programs. Specifically he stated:

> Continuous buffering over a specified time period is a different concept than "selectively recording, based on retention criteria", "selectively recording, without user interaction", "automatically storing, only some of a plurality of broadcast programs" as contemplated by the 585 Asserted Claims.

[456] Based on Rovi's read-ins, the Defendants' systems work by using [redacted] To advocate for his infringement position, however, Mr. Wahlers

adopted a contradictory position at trial by explaining that the 585 Claims would include recording all programs on a channel into a circular buffer. I reject Mr. Wahlers' evidence as it is inconsistent and incoherent. Mr. Wahlers should be held to his original opinion.

[457] The only difference between the Oracle Video Server, as described in the Oracle White Paper and Oracle Patent, and the 585 Claims is that the Oracle White Paper and Patent do not describe how to implement the system on an IPG. However, that would have been CGK. By 2003, the Oracle Video Server was commercially available and was being marketed to television companies who had their own IPGs already developed.

[458] Dr. Robinson himself demonstrated how to implement the Oracle Video Server using Minerva's IPG at two conferences in 2000 and 2001 that had hundreds of thousands of attendees. Minerva was a well-known, leading American software and multimedia company formed in 1992. Throughout the 1990s, Minerva was at the forefront of developing solutions to allow users to view television by leveraging internet protocols. The Oracle Video Server is also the preferred server described in the iMagic, which included an IPG.

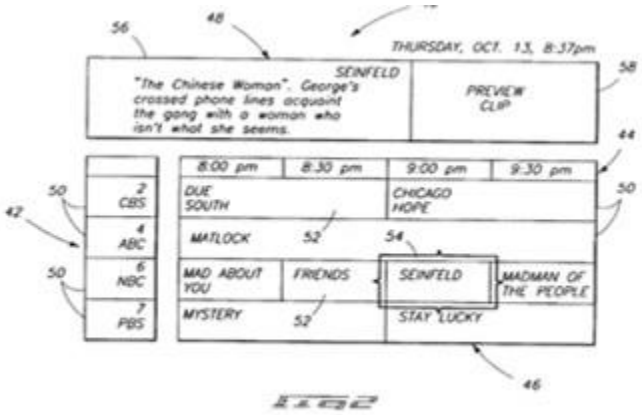
[459] Based on the evidence before me, I find that the 585 Claims would have been obvious from the Oracle White Paper and the Oracle Patent alone.

3) Microsoft Patent

[460] Microsoft Corporation was at the forefront of developing IPTV technology in the 1990s, and ultimately developed the Mediaroom platform that is the subject of these actions. In 1995,

Microsoft filed a patent entitled, “System and Method for Calling Video on Demand using an Electronic Programming Guide.” The Microsoft Patent was published on May 12, 1998, almost five-years before the priority date of the 585 Patent.

[461] The Microsoft Patent discloses how to implement a “historical IPG,” similar to the modern-day implementation in Mediaroom, so that users can scroll back in time and view content, on-demand, from a continuous remote video server. For example, Figure 2 of the Microsoft Patent shows an IPG with the current time of 8:37 pm. It shows how the user could select a program earlier (e.g. 8:00 pm), whereby it will playback the recorded content from a remote server.



[462] The Microsoft Patent also explains that users can “rewind” live TV to receive the recorded content of the same program that is currently being broadcasted. This would include restarting the program from the very beginning. For example, the patent explains how a user could access the automatic recordings to go back in time to view a portion of a Seinfeld episode they missed:

> It is further noted that a combination of viewing current and past programs can be employed. For instance, suppose a viewer is watching the real-time video data stream of the current "Seinfeld" program, but is distracted during the middle portion of the show. The viewer could simply "rewind" to the point at which they were distracted and replay it. The viewer is not really rewinding the show, in the sense of a VCR cassette, but instead is changing from the real-time video data stream of the current "Seinfeld" program to the stored video data stream of the earlier segment of the same "Seinfeld" program. The viewer will be able to scan the stored segment and catch up to the real-time video data stream. The possibilities afforded by this fully interactive television system offer tremendous flexibility and control to the viewer.

[463] I find that the 585 Claims were obvious in light of the Microsoft Patent for the reasons set out below:

A. Elements 1, 2, 8 and 9 were obvious: the Microsoft Patent teaches an operator automatically recording a subset of television programs to a remote server.

B. Element 3 was obvious: the Microsoft Patent teaches allowing users to playback programs that had already been recorded to that remote server.

C. Elements 5 - 8 were obvious: the Microsoft Patent teaches allowing users to rewind so they could view missed portions of currently airing programs.

D. Element 4 was obvious: the Microsoft Patent teaches deleting programs, which is a necessary element of a continuous media server.

[464] The Defendants have established, on a balance of probabilities, that there are no differences between the State of the Art and the 585 Patent. Therefore, there is no need to proceed to Stage 4 of the *Sanofi-Synthelabo* analysis.

E. *Infringement*

[465] At trial, the Defendants conceded that Claims 36, 87 and 127 would be infringed in the event they were found to be valid. Only the infringement of Claim 34 was at issue. I understand from the Defendants' submissions that they concede that if Claim 34 was found to be valid, the Fibe TV and Optik TV STB implementations would infringe Claim 34. For clarity, Rovi does not allege that Bell or TELUS' web or mobile implementations infringe any of the 585 Claims.

[466] If I am incorrect and the 585 Claims are valid, I find that they were infringed by the Defendants' STB implementations.

XIX. The 482 Patent

[467] The 482 Patent was filed on October 9, 2001. It claims priority to US Application No. 60/239,377 filed on October 11, 2000, and to US Application No. 60/270,351 filed on February 21, 2001.

[468] The 482 Patent is titled, "Systems and Methods for Caching Data in Media-On-Demand Systems." It relates to systems and methods for retrieving non-on-demand media data and on-demand media data from separate data sources in an EPG. The 482 Patent describes data for on-

demand media (e.g. titles or descriptions of on-demand videos) and non-on-demand media (e.g. television program titles, additional television program information) as any data, which describes the media or is associated with the media, not the media itself. The 482 Patent outlines that some of the on-demand media data is "automatically retrieved" and "automatically stored" at the user television equipment.

[469] The patent disclosure describes the problem addressed by the 482 Patent.

> Some interactive program guide systems may provide listings for on-demand videos. In some systems, the on-demand video listings are provided from a data source that is separate from the source that provides listings and other information for non-on-demand media, such as television programs. A video-on-demand server may, for example, provide the listings for on-demand videos to the program guide in-band with or out-of-band from the program guide data or normal television programming. When video-on-demand listings are provided in band, the program guide must establish a connection with the video-on-demand server (if one is not established), and tune the user away from the television program the user is watching in order to retrieve listings. This causes the user to miss part of the programming that he or she is watching. When video-on-demand listings are provided out-of-band, the program guide must also establish a connection with the video-on-demand server (if one is not established), and retrieve the listings. In such approaches, low bandwidth connections may cause unacceptable delays in the display of the video-on-demand listings. In addition, some video-on-demand information, such as new release. listings, is frequently accessed by many users throughout the network. Each user's equipment must establish a session with the server every time information is needed. This may cause huge peak resource demands on the distribution network.
>
> (Emphasis mine)

[470] In essence, the 482 Claims address "the undesirable consequences of interrupting a user's television viewing experience during peak activity times on a network."

[471] The 482 Claims include both method claims (Claims 1, 5, 13 and 14) and systems claims (Claims 41, 45, 53 and 54). They describe a method and means for retrieving non-on-demand and on-demand media data, displaying non-on-demand and on-demand media data, and storing on-demand media data, including automatic retrieval and storage of on-demand media for use in an EPG.

[472] There are two independent claims, Claim 1 (method claim) and Claim 41 (system claim) on which the dependent claims depend. The claims at issue are Claim 1 and Claim 41.

[473] Claims 5, 13 and 14 depend on Claim 1, an independent claim:

> 1. A method for retrieving data for use in an interactive television application system having an interactive television application implemented at least partially on user television equipment, in which non-on-demand media data is provided by a non-on-demand media data source and on-demand media data is provided by an on-demand media data source, and wherein the non-on-demand and on-demand media data sources are separate, comprising:
>
> retrieving the non-on-demand media data from the non-on-demand media data source;
>
> displaying a first set of on-demand media data on the user television equipment;
>
> identifying, at the user television equipment, a second set of on-demand media data that corresponds to the displayed first set of on-demand media data;
>
> automatically retrieving the second set of on-demand media data from the on-demand media data source responsive to the identifying;
>
> automatically storing the second set of on-demand media data in the user television equipment;

displaying the second set of on-demand media data in response to a user indication to access at least the second set of on-demand media data; and

displaying the non-on-demand media data in response to a user indication to access at least the non-on-demand data.

5. The method of claim 1, wherein the second set of on-demand media data retrieved is video-on-demand listings data.

13. The method of claim 1, further comprising retrieving on-demand media data from the on-demand media data source in response to a user selection of an on-demand media listing.

14. The method of claim 1, further comprising determining if the second set of on-demand media data is cached.

[474] Claims 45, 53 and 54 depend on Claim 41, independent claim:

41. A system for retrieving data for use in an interactive television application system having an interactive television application implemented at least partially on user television equipment, in which non-on-demand media data is provided by a non-on-demand media data source and on-demand media data is provided by a on-demand media data source, and wherein the on-demand and the non-on-demand media data sources are separate, comprising:

a means for retrieving the non-on-demand media data from the non-on-demand media data source;

a means for displaying a first set of on-demand media data on the user television equipment;

a means for identifying, at the user television equipment, a second set of on-demand media data that corresponds to the displayed first set of on-demand media data;

a means for automatically retrieving the second set of on-demand media data from the on-demand media data source;

a means for automatically storing the second set of on-demand media data in the user television equipment;

a means for displaying the second set of on-demand media data in response to a user indication to access at least the second set of on-demand-media data; and

a means for displaying the non-on-demand media data in response to a user indication to access at least the non-on-demand data.

45. The system of claim 41, wherein the second set of on-demand media data retrieved is video-on-demand listings data.

53. The system of claim 41, further comprising a means for retrieving on-demand media data from the on-demand media data source in response to a user selection of an on-demand media listing.

54. The system of claim 41, further comprising a means for determining if the second set of on-demand media data is cached.

[475] The experts generally agreed that the essential elements of the 482 Claims are:

Element 1: An interactive television application system (at least part of the application must be installed on the user television equipment, such as a STB);

Element 2: Separate sources of Media Data (on-demand and non-on-demand media data);

Element 3: Retrieving non-on-demand media data;

Element 4: Consists of three sub-elements:

i. Displaying a first set of on-demand media data;

ii. Identifying, at the user television equipment, a second set of on-demand media data that corresponds to the displayed first set; and

iii. Automatically retrieving the second set of on-demand media data.

Element 5: Automatically storing the second set of on-demand media data;

Element 6: Displaying the second set of on-demand media data (in response to a user indication to access it); and

Element 7: Displaying non-on-demand media data (in response to a user indication to access it).

[476] The experts agreed that the dependent claims add the following:

> Claims 5 and 45: the second set of on-demand data is video-on-demand data;
>
> Claims 13 and 53: retrieving on-demand media data from its original source in response to a user selection of an on-demand media listing; and
>
> Claims 14 and 53: determining if the second set of on-demand media data is cached.

A. *General Observations*

[477] It is useful to put to bed certain arguments raised by the parties before turning to the issues of infringement and validity.

[478] First. the 482 Claims relate to a specific way to retrieve and cache (i.e., store) "on-demand media data" at user television equipment. On-demand media data is information that describes on-demand media (such as titles, posters, cast & crew information, including internet content such as the weather and stock prices). Similarly, non-on-demand media data is information that describes non-on-demand media (e.g., titles and posters for television shows).

[479] In its closing submissions, Rovi argued that the 482 Patent has nothing to do with on-demand videos on the internet. However, the 482 Patent states that on-demand media data includes video-on-demand, interactive video games, stock market information, weather information, sports scores, sports statistics, or other suitable on-demand media information. The 482 Patent uses video-on-demand and on-demand videos interchangeably.

[480] Second, the 482 Patent requires on-demand media data to be "automatically retrieved," which involves downloading and storing media data in advance of it being requested for display by a user. Such retrieval is faster than having to download the data from the operator's remote server every time it needs to be displayed. Retrieving media data from the remote server can be delayed by factors such as network latencies, slow internet connections or peak activity demands on the network. Automatically retrieving the on-demand media data at the user television equipment, as claimed by the 482 Claims, avoids these challenges.

[481] Despite these problems being identified multiple times in the 482 Patent, in his report, Mr. Wahlers denied that the 482 Claims had anything to do with solving these problems. On this basis, he claimed the prior art was not relevant. However, at trial, Mr. Wahlers conceded that this was the problem being addressed by the 482 Claims:

> Q. […] the asserted claims of the 482 Patent are trying to reduce the amount of network traffic. This is the traffic between the headend and the homes and keeping the data in the cache so it's available quickly, right?
>
> A. Correct.

[482] Finally, like the 585 Patent, the 482 Patent is a paper or ideas patent. I note that it provides no detail about how to work the purported invention. Mr. Ellis acknowledged that as of October 2001, no prototype had been created of what was claimed in the 482 Patent.

B. *Claims Construction*

1. Whether on-demand media data is being performed in a particular sequence

[483] The main dispute between the experts is whether the 482 Patent requires that the steps related to the on-demand media data being performed in a particular sequence. There is no dispute that if I should find that the 482 Claims require a sequence, the Defendants' IPTV systems do not infringe any of the claims. The arguments are focus on the steps laid out of Claim 1, which are repeated in Claim 41.

[484] Dr. Robinson's opinion is that the following sequence is required:

A. First, a first set of on-demand media data needs to be displayed at the user television equipment;
B. Second, the user television equipment (not the remote server) must identify a second set of on-demand media data which corresponds to the displayed first set of on-demand media data;

C. Third, the second set of on-demand media data must be automatically retrieved from the remote server and automatically stored on the user television equipment; and

D. Fourth, the second set of on-demand media data must be displayed in response to a user indication to access it.

[485] For the purpose of infringement, Rovi says no sequence is required. Rovi argues that automatic retrieval does not need to take place after the display of the first set. In its closing submissions, Rovi submits that case law is clear that unless the steps of a method claim actually recite an order, the steps are not construed to require one and relies on the US District Court case of *Bio-Rad Labs, Inc v 10X Genomics, Inc*, 2020 US Dist LEXIS 197424, at 8 in support of this proposition.

[486] However, US cases on claims construction are of limited assistance since in Canada, claims are construed purposively, as opposed to literal construction and doctrine of equivalents

approach of US courts. In any event, Rovi misrepresents the case. After citing the general rule, District Judge William G. Young added that "a specific order is appropriate where the claim language, as a matter of logic or grammar, requires that the steps be performed in the order written or the specification directly or implicitly requires an order of steps" and "a method claim can also be construed to require that steps be performed in order where the claim implicitly requires order, for example, if the language of a claimed step refers to the completed results of the prior step."

[487] I note that for the purposes of distinguishing the prior art for validity, Mr. Wahlers gave the opinion that a sequence was required and consistently relies on the sequence when distinguishing the prior art. In his report, Mr. Wahlers agreed that the 482 Claims must happen in this sequence, and differentiated the prior art on the basis that it did not follow the sequence. For example, to distinguish the prior art, Mr. Wahlers wrote:

> Aristides does not describe displaying a first set of on-demand media data followed by automatically retrieving and storing a second set of on-demand media data, as contemplated by…claims 1 and 41.
>
> […]
>
> The skilled person would understand that the 482 Asserted Claims require that the display of a first set of on-demand media data triggers the retrieval and storage of a second set of on-demand media data.

[488] On cross-examination, Mr. Wahlers changed his opinion, claiming that the sequence was not required, and that the argument he made in his report about the sequence was a "mistake:"

> Q. I'm going to take you to the next sentence. Bottom of the page, 87 to the top of the page: "The skilled person would understand the 482 asserted claims require that the display of the

> first set of on-demand media data triggers the retrieval and storage of a second set of on-demand media data." Do you see that?
>
> A. I do.
>
> Q. And you understand, Mr. Wahlers, that your opinion on construction has to apply equally to infringement and validity, right?
>
> A. Correct.
>
> Q. Right. So your opinion is that there is a sequence here?
>
> A. My opinion is that I was -- my wording is wrong here, that this isn't what I intended. So this is a mistake on my part, in this sentence. I don't think it requires that the display occur first before, or the delivery of a second set. I don't believe that.

[489] This answer is not credible. In Mr. Wahlers' report, he was clear that a sequence was required, which was not a drafting mistake. That position was fundamental to his validity opinion. He used similar language throughout his validity report, and it is one of the main bases on which Mr. Wahlers differentiates the prior art. Rovi relies on that very sequence to distinguish the prior art for validity at paragraphs 295(b) and 305(b) of its written submissions. However, it is not open to Rovi to argue one construction for infringement and one construction for invalidity.

[490] Rovi argues that Dr. Robinson, in his claims construction, never identified the sequence and changed his construction. I disagree Dr. Robinson noted the order of particular steps in 482 Claims by using the words "before" and "after" in his initial report when opining on Element #4 at paragraph 60 of his validity report reproduced below.

> The Skilled Person would understand that "automatically retrieving" means that this is done without any user indication to access the second set of on-demand media data. For example, as

> depicted in Figure 13 and 14, once the Video-on-Demand (620) guide is launched, if alphabetical movie title data "Movies A-Z" in Figure 13 is commonly accessed or likely to be accessed, the interactive television system may automatically retrieve and cache at the user television equipment the media data (titles) for all (or some) of the movies (e.g. The Fan, Feminine Touch etc. in Figure 14) when the user launches the guide of Figure 13 and before the user selects Movies A-Z (622 of Figure 13).46 The Skilled Person would understand that some of the second set of on-demand media data could be retrieved from the on-demand media source in response to a user request, but at least some of the on-demand media data must be "automatically retrieved" without any indication to access it. The Skilled Person would understand that this is required to fulfil the purpose of the invention. If all of the on-demand media data is retrieved only *after* the user indication to access it, for example, when the user clicks on "Movies A-Z", then this would be understood by the Skilled Person to be "manual only" and not "automatic" retrieval. The Skilled Person would understand that "manual only" retrieval is not contemplated by Claims 1 or 41. (His Emphasis and Italics)

[491] In its closing submission, Rovi suggests that Dr. Robinson admitted that it could be "at the same" time when he gave an example in paragraph 60 of his validity report. However, Rovi's counsel did not read the entire sentence: "… and before the user selects Movies A-Z." At paragraph 58 of his report, Dr. Robinson contrasted this method to non-on-demand media data where there "is no limitation on how or when" it is retrieved. This is the very same sequence that Rovi relies on in their factum to distinguish the prior art.

[492] On the evidence before me, I find that the 482 Claims require a sequence. The claims must be construed purposively without an eye on infringement or validity. The plain language of the 482 Claims describe a detailed and specific sequence of steps. The claim language, as a matter of both logic and grammar, requires that the steps to be performed in the order written.

There is no ambiguity at all. I accept Dr. Robinson's unshaken opinion that based on the plain language of the claims, a sequence is required.

> 2. Identifying […] a second set of on-demand media data that corresponds to the displayed first set

[493] The experts also disagreed on the construction of the element "a second set of on-demand media data."

[494] Mr. Wahlers construed the term "second set" to mean a set of data that is not already displayed but is related to or ancillary to the first (displayed) set.

[495] Dr. Robinson did not construe the term "second set" in his validity report. He stated in his responding infringement report that the Skilled Person would understand that "these phrases [first and second set of on-demand media data] must refer to different types of data – they are not intended to cover more data of the same type."

[496] In his examination-in-chief, Dr. Robinson stated that the second set means data that corresponds to the first set that was previously displayed, which is consistent with Mr. Wahlers' construction. During cross-examination, Dr. Robinson presented yet another construction of the term "second set," which he said depends on the sequence of when the data is retrieved. When asked where this information was found in his initial validity report, he was unable to provide a reference.

[497] Mr. Wahlers' construction was reasonable, consistent with Dr. Robinson's construction during his examination in chief at trial, and supported by the language of the 482 Patent. In the circumstances, I adopt Mr. Wahler's construction and reject Dr. Robinson's various other constructions.

3. Automatically reviewing the second set of on-demand media data

[498] The experts disagreed as to whether the second set of on-demand media data can be said to have been retrieved automatically if there is a user indication.

[499] However, both experts agree that the 482 Asserted Claims require the second set of on-demand media data to be downloaded automatically. In other words, "automatically retrieving" means without user indication to access it.

[500] If the second set of on-demand media data is downloaded only in response to a user indication, then this is "manual only retrieval," not "automatic retrieval" and is not covered by the 482 Asserted Claims, as admitted by Mr. Wahlers in cross-examination:

> Q. And you say here in paragraph 105 that you disagree that automatically retrieved includes manually only retrieval of the on-demand media data, right?
>
> A. That's correct. Automatically retrieved does not include manual only.
>
> Q. Right. And on this basis you say the asserted claims are not overbroad?
>
> A. Yes.
>
> Q. I want to talk about what manual only retrieval means. And you set that out in paragraph 112. In that paragraph you say: "I agree with Dr. Robinson's statement, if the on-demand media data is only

ever retrieved in response to a user indication to access it, that would be understood to be manual-only retrieval and not automatic retrieval." Right?

A. Yes.

Q. You qualify that, though. You say: "As long as he is intending that statement to mean retrieval of the second set from a remote server."

A. Yes.

Q. So, sir, you would agree, then, if the second set of on-demand media data is only ever retrieved from the remote server in response to a user indication to access it that would be understood to be manual only retrieval and not automatic retrieval, right?

A. Yes. If there were a manual indication between the first and second set that says I also want the second set, that would not be automatic retrieval.

Q. Right. Your opinion is that if the second set of on-demand media data is only ever retrieved from the remote server in response to a user indication to access it, that would be understood as manual only, right?

A. Yes.

Q. And your opinion is that automatic retrieval does not include manual only retrieval in the asserted claims, right?

A. Yes.

C. *Infringement and Validity Issues*

[501] Both infringement and validity are at issue.

[502] Rovi submits that since February 2012, the Fibe TV and Optik TV services (including those provided on the Web App) have infringed the 482 Claims. It says that Mr. Barth’s findings

from his packet capture analysis, along with Mr. Wahlers' infringement analysis, demonstrate that all of the essential elements of the 482 Claims are present.

[503] Mr. Barth conducted testing on multiple STBs, including the Arris VIP5562 for the Fibe TV service and the Cisco 7150 for the Optik TV service. I accept that Mr. Barth's findings apply equally to all the alleged STBs. All of the alleged STBs share the same server, and function the same way, with respect to retrieval and storage of on-demand media data. Dr. Robinson agreed with this conclusion.

[504] The experts disagree on whether the following essential elements of the 482 Claims are present in the Fibe TV and Optik TV services:

(i) Claims 1/41: Element #4 – identifying […] a second set of on-demand media data that corresponds to the displayed first set;

(ii) Claims 1/41: Element #4 – identifying, at the user television equipment, a second set of on-demand media data;

(iii) Claims 1/41: Element #4 – automatically retrieving a second set of on-demand media data; and

(iv) Claims 1/41: Element #6 – displaying the second set of on-demand media data in response to a user indication

[505] Rovi submits that all of the above elements are present in the Fibe TV and Optik TV services, and all of the 482 Claims have and continue to be infringed by Bell and TELUS.

[506] The Defendants submit that the 482 Claims are either not valid or not infringed for the following reasons:

A. First, the 482 Claims were anticipated by Rosin.

B. Second, the 482 Claims were obvious to the Skilled Person based on the CGK alone, or the CGK in light of the State of the Art that included Aristides, LaJoie, and O'Robarts.

C. Third, if the "automatic retrieval" element of the 482 Claims is interpreted to include "manual only retrieval" (which is what Bell and TELUS' IPTV systems do), then the 482 Claims are overbroad.

D. Fourth, Bell and TELUS do not infringe the 482 Claims for five independent reasons.

1. Validity

(a) Anticipation

[507] The Defendants submit that Rosin discloses each of the essential elements of the 482 Claims.

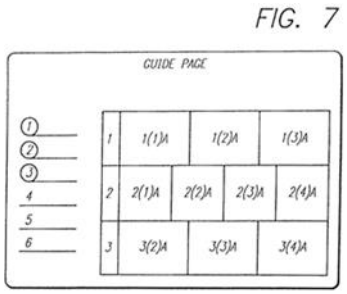
[508] Rosin is a U.S. patent filed by Sony Corporation, a leading consumer electronics company. Rosin was published in February 22, 2000, approximately eight months before the priority date of the 482 Patent. Rosin is titled, “Rotary Menu Wheel Interface” and teaches a full interactive program guide that includes efficient ways to cache on-demand media data in the same sequence as claimed in the 482 Patent.

(i) Disclosure

1) Element 1: Interactive Television Application System

[509] Rosin discloses an interactive television application system at least partially running on user television equipment. Rosin discloses a guide page and, while Mr. Wahlers originally took a

different position in his report, both experts now agree that the “guide page” disclosed by Rosin is an “interactive television application system.” Indeed, the depiction of the guide page in Figure 7 of Rosin (right) is a familiar IPG design, and virtually identical to Bell and TELUS' video-on-demand IPGs which are alleged to infringe.



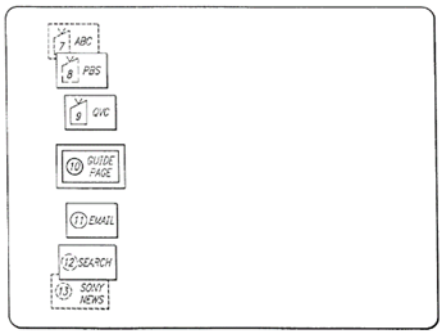
[510] As a result, there is no dispute that Rosin discloses Element 1.

2) Element 2: Separate Sources of Media Data

[511] Rosin discloses separate sources of media data for on-demand and non-on-demand media. Figure 1 of Rosin shows the “on-demand media data” being provided by the “Internet (server 16)” source and the “non-on-demand media” (and associated media data) being provided by separate “Cable” (17) or the “Digital satellite service (DBS)” (19) sources.

[512] Both experts agree that Rosin discloses integrating two sources of media data on one interface, which it calls the “Rotary Wheel Interface.” In Figure 8 of Rosin, the Rotary Wheel Interface is shown as having traditional non-on-demand media (for e.g. ABC, PBS and QVC) and a link to the “Guide Page” containing on-demand media content, as well as other on-demand information, such as Email, Search and Sony News:

FIG. 8



[513] As a result, there is no dispute that Rosin discloses Element 2.

3) Element 3: Retrieving non-on-demand media data

[514] Rosin discloses the third essential element which is retrieving non-on-demand media data. As shown above, the Rosin Rotary Wheel Interface includes panels describing broadcast television stations (i.e. non-on-demand media data). Rosin describes how the non-on-demand media data can be provided by either or both a telephone modem or a digital satellite connection.

4) Element 4: Automatically retrieving the second set of on-demand media data

[515] As discussed above, the 482 Patent claims require a specific sequence: (1) a first set of on-demand media data is shown; (2) a second set of on-demand media data is identified at the user television equipment, which corresponds to the displayed first set; (3) the identified second set of on-demand media data is retrieved from the source. This specific sequence is explicitly disclosed in Rosin.

[516] Rosin discloses a way to automatically retrieve on-demand media data by using an "intelligent agent," installed on the user's television equipment. The intelligent agent analyzes a user's past behaviour and automatically downloads data that it predicts will interest the user:

> The [intelligent] agent will record the attributes of previously visited web sites from the guide page containing the links provided by the server. The intelligent agent can identify subject areas of interest for the user based on the past viewing and browsing habits of the client user in order to determine the user's preferences for the selected topics […]

[517] Rosin describes how the intelligent agent can be used in the sequence required in the 482 Claims:

> Documents or web pages which are part of frequently visited web sites can also be automatically updated and downloaded during offpeak hours in order to allow for fast off-line browsing. After a link is selected by the user, and while the previously downloaded and stored web page is being viewed by the user [*i.e., the first set is displayed*], the client can establish a connection with the POP server to follow any links present in the web page and download other related or linked web pages which the user may predictably find of interest [*i.e., a second set that corresponds to the displayed first set is identified, and is automatically retrieved*].

[518] In his report, Mr. Wahlers claimed that Rosin only disclosed downloading on-demand media data periodically during off-peak hours. However, on cross-examination he agreed that Rosin discloses more than just downloading data on off-peak hours, including the two examples described above.

5) Element 5: Automatically storing the second set of on-demand media data

[519] Both experts agree that Rosin discloses automatically storing media data on the user television equipment (which Rosin calls the "client"). For example, Rosin explains how to pre-cache and store media data:

> …the associated objects or graphics may be downloaded periodically to the client and saved on the digital storage medium during off-peak hours in the early morning hours when usage is low in order to provide a fast dynamic interface to the user.

[520] As a result, there is no dispute that Rosin discloses Element 5.

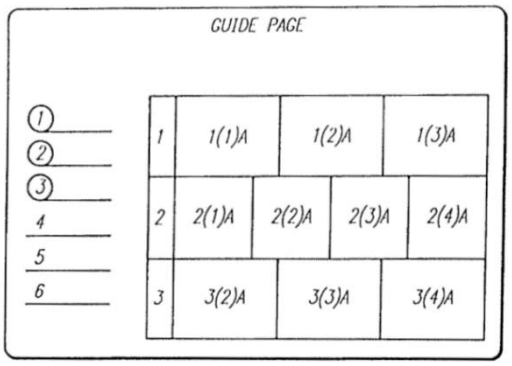
6) Element 6: Displaying the second set of on-demand media data

[521] Rosin discloses the sixth element (displaying the second set of on-demand media data in response to a user's indication to access it) by describing how to cache on-demand media data so that the user can later request to "access" it for display:

> Either the client or the server can automatically initiate downloading at off-peak hours as previously discussed in order to efficiently use the available data connections to download data to the client for access by the user.

[522] The Skilled Person would understand that when a user is requesting to access that information in the future, that the data will be retrieved from the cache and displayed.

FIG. 7



[523] As a result, there is no dispute that Rosin discloses Element 6.

7) Element 7: Displaying non-on-demand media data

[524] Rosin discloses the seventh element which requires non-on-demand media data to be displayed in response to a user's indication to access it. Rosin discloses this function on its Rotary Wheel Interface and describes it as follows:

> One aspect of the present invention is that the system can display a rotary menu on the screen to present both internet links and traditional television programming as channels for selection by the user.

[525] The Skilled Person would understand that this describes the Rotary Wheel Interface displaying non-on-demand media data in response to a user's indication to access it. Mr. Wahlers provides no contrary opinion on whether Rosin discloses this claim element.

[526] As a result, there is no dispute that Rosin discloses Element 7.

8) Claims 5 and 45: The second set is video-on-demand listings data

[527] Claims 5 and 45 require that the second set of on-demand media data be video-on-demand listings data. Mr. Wahlers' opinion is that "the Skilled Person would understand video-on-demand listings data to be 'on demand media data that is used in a listings display in a manner that would permit a user to select an on-demand program." This is disclosed in Rosin, which expressly states that the patent is designed to provide a single system for navigating various types of information, including video-on-demand content:

> Hence, there has been a long existing need for a system which is capable of navigating the internet efficiently so as to provide text, images, sound and video-on-demand in a simple, intuitive manner akin to traditional television programming for mass-market consumers. The present invention fulfills those needs.

[528] Mr. Wahlers criticizes Rosin on the basis that it discloses "internet content" and not "on-demand media data." Mr. Wahlers' narrow reading is contradicted by the 482 Patent itself, which broadly defines "on-demand media data" to include traditional "internet content" including such things as weather information or sports scores:

> On-demand media data source 128 may provide on-demand media data, such as video-on-demand information…audio-on-demand information…interactive video game or other application information, stock market information, weather information, sports scores, sports statistics, or other suitable on-demand media information […]

[529] At trial, Mr. Wahlers resiled from his report and conceded that Rosin contemplates that the "Guide Page" in Rosin could contain video-on-demand content.

[530] As a result, there is no dispute that Rosin discloses claims 5 and 45.

9) Claims 13 and 53: Retrieving on-demand media data from source in response to a user selection of an on-demand media listing

[531] Claims 13 and 53 require that the system should be capable of retrieving on-demand media data from the original source (i.e. the server) in response to a user indication to access an on-demand media listing. Rosin provides that objects (i.e. the on-demand media data) can be stored on the server, and can be downloaded when the link is first highlighted by the user (i.e. in response to a user selection). As a result, there is no dispute that Rosin discloses claims 13 and 53.

10) Claims 14 and 54: Determining if the second set of on-demand data is cached

[532] Claims 14 and 54 require that the system be capable of determining if the second set of on-demand media data has been cached. Rosin discloses caching the on-demand media in two separate ways: either periodically or in the sequence required by the 482 Claims. Rosin then describes using the cached information to "provide a fast dynamic interface to the user."

[533] The Skilled Person would understand that the reference to caching, coupled with the goal of providing "a fast dynamic interface" would be accomplished by actually using the cached information (which in turn requires determining if the information has been cached). Accordingly, by disclosing caching of information, and the effects of using this cached information, Rosin discloses that the system must first determine if the data is cached. As a result, there is no dispute that Rosin discloses claims 14 and 54.

(ii) Enablement

[534] Each of the essential elements of the 482 Claims is enabled by Rosin. A Skilled Person in light of the CGK would easily be capable of implementing Rosin. Rosin provides detailed figures showing how to set up the network components (Fig. 1), the guide page and rotary interface (Figs. 5, 7 and 8), and the process by which the on-demand media data is automatically retrieved and stored (Figs. 5 and 7). There are also detailed descriptions of the technology used, the "intelligent agent," and how to construct and operate the system.

[535] Based on the evidence before me, and in particular Dr. Robinson's persuasive opinions, I find that Rosin discloses and enables all of the essential elements of the 482 Claims.

(b) Obviousness

[536] The Defendants submits that the 482 Claims are obvious based on the CGK alone, or in combination with the state of the art including Aristides, LaJoie and O'Robarts.

[537] Rovi submits that the 482 Claims are inventive in light of the prior art and the CGK because the state of the art does not address the same type of latency problem contemplated by the 482 Claims. Rovi argues that the 482 Claims seek to solve the problem of alleviating the disruption to a user's viewing experience while access on-demand media data. This problem is different from the problem addressed by the prior art, which is to reduce delays that arise due to peak activity demands on a network. Rovi attempts to distinguish these two problems stating the Skilled Person would understand that different types of latency are contemplated by the 482

Claims and the prior art. However, this argument disregards the evidence of its own expert that the problem the 482 Claims is trying to address is to "reduce the amount of network traffic."

(a) Stage 1: Identify the Skilled Person and the CGK

[538] The experts agree that the Skilled Person would be the same as the 585 Patent.

[539] By the year 2000, the CGK included many commercially available interactive television systems that had IPGs. These systems required data to be downloaded to a user's equipment, including on-demand and non-on-demand media data. The Skilled Person knew that, without caching data at the user's equipment, network issues could interrupt the user's viewing experience. By that time, many solutions had been proposed and implemented to solve those problems. One solution was "double buffering," which had been used in the computing industry for decades. Double buffering provided a way to cache or buffer two sets of information, similar to displaying one set of on-demand media data then caching a second. Indeed, the second caching solution taught by Rosin is an implementation of double buffering.

[540] In addition, the State of the Art also included Aristides, LaJoie and O'Robarts.

(b) Stage 2: The Inventive Concept

[541] The experts agree that the inventive concept of the 482 Claims are the essential elements that are described in the anticipation analysis.

(c) Stage 3: Difference between the State of the Art and the Inventive Concept

[542] Once again, Dr. Robinson was not cross-examined at trial by Rovi on any element of his obviousness opinion.

(i) Aristides and LaJoie Make the 482 Claims Obvious

[543] Aristides is a patent filed by Microsoft Corporation, titled "Interactive Entertainment Network System and Method for Providing Program Listings During Non-Peak Times." Aristides was issued and available to the public in August of 1997. Aristides is one of many interactive television patents (for e.g. O'Robarts, Girard and Lawler) issued to Microsoft at the time, and the Skilled Person would have been aware of Microsoft's efforts in the TV space.

[544] Aristides teaches one solution to the problem identified in the 482 Patent: how to efficiently download media data during off-peak times to avoid network delays. Aristides taught downloading media data to the user's equipment in advance of peak activity times, to reduce the load on the network:

> The program data records are stored at the set-top boxes for use during the peak time. As a result, during the ensuing peak time, the EPG displays the programming information contained in the stored program data records rather than requesting the information from the headend. This pre-peak transmitting scheme significantly reduces the number of requests made to the headend during the peak time.

[545] Aristides also disclosed virtually every element of the inventive concept of the 482 Claims including: an IPG installed on the user television equipment, separate sources for on-

demand and non-on-demand media data, retrieving non-on-demand media data from the source, automatically storing a second set of on-demand media data, displaying the second-set in response to a user indication to access it, and displaying the non-on-demand media data in response to a user indication to access it. The only difference between Aristides and the 482 Claims is that it does not disclose the sequence required.

[546] LaJoie was a patent issued to Time Warner Entertainment, titled "Inter-Active Program Guide with Default Selection Control." LaJoie was issued and available to the public in December 1998. The Skilled Person would have been aware of what Time Warner was doing in the TV and multimedia space at the time.

[547] Like Aristides and the 482 Claims, LaJoie teaches a solution for overcoming the undesirable consequences of network delays when obtaining media data from a server. LaJoie teaches several solutions, including periodic or continuous transmission of media data to the user's television equipment:

> For example, a week's worth of data could be regularly transmitted by the headend and stored in the set-top terminal's internal memory for display on demand by the user […] the program summary data could be received and stored in the terminal's internal memory on a regular basis, with any full description information being requested from the headend by the set-top terminal as required.

[548] LaJoie also disclosed nearly every element of the inventive concept of the 482 Claims. The only difference between LaJoie and the 482 Claims is that LaJoie does not disclose the sequence required.

[549] Therefore, to the extent that this Court agrees with Mr. Wahlers' new opinion at trial — that the 482 Claims do not require a sequence — then each of Aristides and LaJoie teaches each and every element of the 482 Claims. In any event, even if such a sequence was required, such a variation would have been obvious to the Skilled Person in light of the CGK, and what was disclosed in Aristides and the State of the Art as described below.

(ii) O'Robarts Makes the 482 Claims Obvious – The Sequence

[550] O'Robarts was a patent issued to Microsoft Corporation , entitled "An electronic television program guide." O'Robarts was published on November 25, 1998 and teaches the sequence required by the 482 Claims.

[551] O'Robarts teaches a system and method for automatically downloading on-demand media data to user television equipment. Specifically, O'Robarts teaches a system that uses artificial intelligence to predict what media data the user is likely to request based on historic viewing preferences, and automatically downloads that media data to the user's television equipment. Importantly, O'Robarts also follows the sequence disclosed by the 482 Claims. Specifically, the first set of on-demand media data is displayed to the user, and is used by the IPG to collect viewing preferences. Then, after that information is displayed, the user television equipment uses that viewing preference data to automatically generate a query (i.e. identify at the user television equipment), and automatically retrieve and store a second set of on-demand media data that corresponds to the first set of on-demand media data.

[552] While O'Robarts does not teach all the inventive concepts of the 482 Claims, it made the sequence claimed in the 482 Claims obvious.

[553] To the extent there are any gaps between the purported inventive concepts of the 482 Asserted Claims, those gaps would be obvious to the Skilled Person in light of what is taught in Aristides, LaJoie, Rosin and O Robarts.

[554] By October 2000, there was no difference between the State of the Art as of October 2000 and the inventive concept of the 482 Asserted Claims. Armed with the CGK, Aristides, LaJoie, O'Robarts and Rosin, the Skilled Person would have been able to create the systems and methods in the 482 Asserted Claims without any inventive step or ingenuity. Mr. Wahlers' main criticism of the prior art was that: (1) it was not directed to the same problem as the 482 Patent (which he resiled from at trial) and (2) it did not disclose video-on-demand, but at trial, he admitted that Rosin, Aristides, LaJoie, and O'Robarts all disclosed VOD. Therefore, there is no need to proceed to stage 4 of the obviousness analysis.

[555] As a result, the inventive concept of the 482 Asserted Claims was obvious in light of Rosin alone; and in light of Rosin, Aristides, LaJoie, O'Robarts and the CGK.

(c) *Overbreadth*

[556] The Defendants submit that if the 482 Claims cover "manual only" retrieval, they are overbroad. Since I did not agree with this construction advocated by Rovi for the purpose of infringement, the overbreadth argument is moot. However, if I am incorrect, I find the 482

Claims are broader than the invention disclosed and consistent with the purpose of the alleged invention.

[557] As Dr. Robinson explains his validity report, the invention disclosed in the 482 Patent is a method and system for sending on-demand and non-on-demand media data from separate sources, “automatically retrieving (before any user indication to access it)” and “automatically storing” the second set of on-demand data. The 482 Patent is clear that the purpose of the invention is to overcome the undesirable consequence of: (a) the disruption of the user’s viewing experience; (e) unacceptable delays; and (f) huge peak resource demands on the network.

[558] According to Dr. Robinson, the Skilled Person would understand that overcoming these undesirable consequences was the fundamental problem that the inventor sought to address with the invention in the 482 Patent. The 482 Patent describes that the purpose of “automatically retrieving” the media data before any user indication to access it is to address the problem of disruption of the user’s viewing experience. Further, the 482 Patent teaches that automatically caching and storing the media data in memory address the problem of the peak resource demands on the network.

[559] Dr. Robinson states that the Skilled Person would understand that in order to benefit from the invention, at least some of the on-demand media data must be automatically retrieved, without a user indication to access it, and cached at the user television equipment. This is the purpose of the invention: to reduce the disruption of the user’s viewing experience.

[560] Dr. Robinson notes that if the on-demand media data is retrieved each and every time it is requested, it would cause the same undesirable consequences identified by the 482 Patent. Moreover, if the on-demand media data is only ever retrieved in response to a user indication to access it, that would be understood to be a "manual only" retrieval and not an "automatic retrieval." "Manual only" retrieval would be considered the opposite of "automatic retrieval."

[561] I agree with Dr. Robinson that the Skilled Person would understand that the invention described in the 482 Patent requires "automatically retrieving" at least some of the on-demand media data without a user indication to access it because "manual only retrieving" the on-demand media data causes the very undesirable consequences that the 482 Patent seeks to avoid.

[562] The evidence before me established that Bell and TELUS' systems [redacted] The Skilled Person would understand this to be "manual only" retrieval of the on-demand media data, not "automatic retrieval" of the on-demand media data as required by the 482 Claims. Therefore, the only way that the Defendants' systems can be found to have infringed the 482 Claims is if I were to determine that the "automatic retrieval" includes "manual only retrieval," an interpretation that, as noted earlier, is not supported by any of the experts.

[563] Dr. Robinson's uncontested evidence is that there is no disclosure in the 482 Patent about manually retrieving on-demand media data. Therefore, to the extent such a claim is made in the 482 Patent, the claim is broader than any invention disclosed.

2. Infringement

[564] Given that the Defendants' systems do not infringe the sequence, there can be no infringement of the 482 Patent. The Defendants' IPTV systems do not use the specific sequence required by the 482 Claims. As discussed above, Mr. Wahlers' analysis shows that in the Defendants' systems, [redacted] Bell and TELUS do not have the sequence required.

[565] For this reason alone, the Defendants do not infringe the 482 Asserted Claims. In the circumstances, there is no need to consider the alternative arguments of non-infringement advanced by the Defendants.

[566] However, if I am incorrect in the above analysis, I make the following findings.

[567] As explained in paragraph 475 above, both experts agree that one of the essential elements of the 482 Asserted Claims is that the on-demand media data and the non-on-demand media data must come from separate sources. In its closing submissions, Rovi suggested that Bell and TELUS agreed in the Agreed Statements of Fact and admitted in discovery that there were two sources for web implementation, but that is not correct. The parties only agreed that this applied to STBs. The Defendants expressly did not admit that web-based implementations had two sources. Rovi has no evidence to establish that the web implementations have two separate sources and therefore has not met its burden for infringement on the web implementations.

[568] The 482 Asserted Claims require the "identification" step to occur at the user television equipment. This means that the user television equipment (i.e., the STB or web browser), not the remote server, must "identify" a second set of media data that corresponds to the displayed first set of media data.

[569] Mr. Wahlers never provided an opinion on this issue. Instead, he avoided the issue by stating only that the "system" or "service" identifies the second set of on-demand media data, without specifying which part of the system or service does the identification. Dr. Robinson pointed out that Mr. Wahlers failed to provide an opinion on this important point, while noting that it is actually Bell and TELUS' [redacted] that complete the identification step. Because Mr. Wahlers did not provide an opinion in his report, he was not permitted to give evidence on this issue at trial.

[570] Counsel for Rovi attempted to back-door an opinion on this issue in Mr. Barth's reply report, which provided a single example Mr. Barth says is proof of the "identification" happening on the user television equipment. Setting aside the fact that Mr. Barth was not asked to provide an opinion on claim construction or infringement, his example is a URL that is sent [redacted] for a poster of the movie "the Joker." In his report, Mr. Barth states that the URL is so specific that the identification must have occurred on the STB. However, when Mr. Barth was cross-examined on this point, he admitted that the URLs "originate" from the [redacted], not the STB. As a result, Mr. Barth confirmed Dr. Robinson's [redacted], not the user television equipment as required by the 482 Asserted Claims.

[571] The uncontested evidence is that an essential element of the 482 Asserted Claims is that there must be two separate "sets" of on-demand media data. Therefore, a system that only has one set of on-demand media data cannot infringe the 482 Asserted Claims.

[572] During his cross-examination, Mr. Wahlers admitted that for every infringement scenario he provided in his report, all the on-demand media data was downloaded [redacted] In his own opinion, there are never "two sets" of on-demand media data.

[573] Both experts agree that the 482 Asserted Claims require the second set of on-demand media data to be downloaded automatically. If the second set of on-demand media data is downloaded only in response to a user indication, then this is "manual only retrieval," not "automatic retrieval" and is not covered by the 482 Asserted Claims.

[574] On cross-examination, Mr. Wahlers admitted that for every infringement scenario in his report, all the on-demand media data is downloaded [redacted] This is "manual only" not "automatic retrieval."

[575] For the above reasons, Bell and TELUS do not infringe the 482 Asserted Claims.

XX. Remedies

[576] Section 55 of the *Patent Act* provides for the compensatory remedy of damages in patent infringement actions. If the Court finds a patent to be valid and infringed, a patentee is entitled to recover "all damages sustained" as a result of the infringement (*Patent Act*, s 55(1)).

[577] In addition, subsection 57(1) provides for equitable remedies. Two of these equitable remedies are an injunction (*Patent Act*, s 57(1)(a)) and an accounting of profits (*Patent Act*, s 57(1)(b)). Once a finding of infringement has been made, a patentee can elect its choice of remedy and the Court has discretion to grant it (*Merck & Co v Apotex Inc*, 2006 FCA 323 at para 127 [*Merck FCA*]). A patentee can elect an accounting of profits as an alternative to damages.

[578] Since I have found that the Asserted Claims of the Patents are not valid, it follows that Rovi is not entitled to any remedy. However, if I am incorrect in my invalidity and non-infringement findings, there are two further matters in respect of the proceedings as a whole that remain — Rovi's entitlement to an accounting of profits and to injunctive relief.

[579] Rovi submits that it is entitled to an accounting of profits. It argues that while an accounting of profits is not automatic, the remedy should generally be awarded in the absence of an equitable reason not to. According to Rovi, there is no compelling reason for an accounting of profits not to be awarded in this case.

[580] Rovi further submits that it is presumptively entitled to an injunction if any of the 585 Claims have been infringed (as noted earlier, the injunctive relief for infringement of the 482 Claims is no longer available as the 482 Patent expired last year). Rovi contends that failing to grant a successful plaintiff an injunction effectively amounts to an expropriation of the plaintiff's intellectual property rights and instead turns the patent system into a compulsory licence system. According to Rovi, the case law is clear that refusing to grant an injunction is exceptional, and there is no compelling or exceptional reason not to grant an injunction in this case.

[581] The Defendants contend in the circumstances of this case, neither remedy should be ordered. They have outlined various reasons why relief should be denied including the complexity of an accounting of profits and the misconduct by Rovi.

A. *Rovi's Entitlement to an Accounting of Profits*

1. General Legal Principles

[582] The remedy of an accounting of profits is equitable in origin and its goal is compensatory.

[583] An accounting of profits requires a defendant to account for the profits it has made due to its infringement. The disgorgement of the wrongdoer's profits restores them to the position that they would have been in had they not done the illegal act. It is meant not to punish the defendant, but to prevent its unjust enrichment: *Lubrizol Corp v Imperial Oil Ltd*, [1997] 2 FC 3 at 4-5; *Nova Chemicals Corp v Dow Chemical Company*, 2020 FCA 141 [*Nova Chemicals*] at paras 20, 24.

[584] An accounting of profits acts as "a deterrence tool and a mechanism for restorative justice in the commercial world": *Varco Canada Limited v Pason Systems Crop*, 2013 FC 750 at para 398. There is no deterrence if all the infringer had to pay was a royalty, while retaining all the remaining profits from its illegal use of the invention: *Nova Chemicals* at para 18. The Federal Court has described this scenario as "catch me if you can": *Monsanto Canada Inc v Rivett*, 2009 FC 317, paras 23, 56. Awarding an accounting of profits resolves this problem by removing the economic incentive to infringe: *Nova Chemicals* at para 20.

[585] Rovi submits that an accounting of profits should be presumptively available as a remedy for patent infringement; however, that is not the state of the law.

[586] As stated by Mr. Justice Simon Fothergill in *Bayer Inc v Cobalt Pharmaceuticals Company*, 2016 FC 1192 at paragraph 6, while it is common practice in cases of patent infringement to allow a plaintiff to elect between damages and an accounting of profits, "this practice, however, does not establish a right to an election." The award of an equitable remedy, such as an accounting of profits, is in the Court's discretion, subject to the principles governing its availability (*Strother v 3464920 Canada Inc*, 2007 SCC 24 at para 74; *Wewaykum Indian Band v Canada*, 2002 SCC 79 at para 107; *Apotex Inc v Bristol-Myers Squibb Co*, 2003 FCA 263 at para 14; *Philip Morris Products SA v Marlboro Canada Ltd*, 2016 FCA 55 [*Philip Morris FCA*] at para 8).

2. Factors to the considered

[587] Several factors typically guide the Court's discretion in determining whether to award an accounting of profits, including:

(a) The complexity and the practical difficulties of an accounting of profits: *JM Voith GmbH v Beloit Corp*, [1997] 3 FC 497 (FCA) [*Voith*] at paras 114-115;

(b) The conduct of the patentee: *Seedlings Life Science Ventures LLC v Pfizer Canada ULC*, 2020 FC 1 [*Seedlings*] at para 251; *Voith* at para 111; *Merck FCA* at paras 129-131;

(c) The good faith of the defendant: *Voith* at para 119 citing *Reading & Bates Construction Co v Baker Energy Resources Corp*, 1994 CarswellNat 1437 (FCA) at para 42; and

(d) Whether the patentee does not compete with the Defendants (*Seedlings* at paras 252-253; *Merck FCA* at paras 128, 132) or routinely licences its patents: *Jay-Lor International Inc v Penta Farm Systems Ltd*, 2007 FC 358 [*Jay-Lor*] at para 119.

[588] These factors are non-exhaustive and the weight assigned to them may vary depending on the circumstances of each individual case.

(a) Complexity of calculating an accounting of profits

[589] One of the factors to consider is whether calculating an accounting of profits would be too complex or the result would be unreliable (*Eurocopter v Bell Helicoter Textron Canada Ltée*, 2012 FC 113 [*Eurocopter*] at paras 411-414. The Court's concern is not whether an accounting of profits, calculated in accordance with proper principles, can result in a significant quantum of recovery. Rather, as stated by Mr. Justice Yves de Montigny in *Philip Morris Products SA v Marlboro Canada Ltd*, [2015] FCJ No 1564, aff'd *Philip Morris FCA* at paras 25-26, the focus is on the proportionality of the accounting remedy.

[590] Rovi submits that there can be no doubt that the accounting of profits quantum could be substantial. It says that the Patents relate to IPG functionality used by millions of television customers of the Defendants. On Rovi's theory, it is entitled to an accounting of not only the Defendants' profits associated with television services, but also to certain profits that they were able to earn on other bundled services. Consequently, it says even if the accounting of profits were complex, it is of little significance to the analysis.

[591] While complexity alone is not determinative, it is a factor to be taken into account in assessing a patentee's entitlement to an accounting of profits. As explained by the Federal Court of Appeal in *AlliedSignal Inc v Du Pont Canada Inc* (1995), 61 CPR (3d) 417 (FCA) [*Allied*] at para 81: "…serious practical difficulties can be encountered by the Court in the determination of profits, and it is desirable that a trial judge consider the practical consequences of ordering this remedy in a particular case […]."

[592] Dr. Bazelon testified that the methodology outlined in his and Mr. Harington's reports is well within the wheelhouse of economic and accounting experts. While explaining the logit model, a statistical model that models the probability of an event taking place by having the log-odds for the event be a linear combination of one or more independent variables, Dr. Bazelon stated that "…economists use this kind of model and compare the actual world to an alternative world that they're trying to model all the time. This is the heart of what many of us do." Both Dr. Bazelon and Mr. Harington testified that they had done these types of analyses before.

[593] Mr. Bakewell submitted a responding expert report and opined that an accounting of profits analysis would be complex. He went on to raise various questions regarding whether the methodologies Dr. Bazelon and Mr. Harington described could be implemented.

[594] Rovi submits that Mr. Bakewell was not credible and that little weight should be given to his evidence in light of his role as an advocate for the Defendants and his conflicting evidence during cross-examination. I disagree. Mr. Bakewell struck me as a careful, meticulous and balanced witness. While the financial experts may have disagreed on some matters, there was a

great deal of common ground. Although certain problems listed by Mr. Bakewell were minor or inconsequential, his pointed critiques of Dr. Bazelon and Mr. Harington's reports were enlightening in terms of identifying potential and serious issues that could arise in an accounting of profits exercise.

[595] To be clear, I have no reason to doubt the credibility of Dr. Bazelon and Mr. Harington. Their opinions are rigorous, well reasoned and balanced. However, the focus of their evidence was on the methodology and feasibility of conducting an accounting of profits in this case. In fact, Dr. Bazelon admitted in cross-examination when preparing his initial report, he was not even aware that complexity was considered by Canadian courts in deciding whether to permit an election of accounting of profits.

[596] Rovi submits that the accounting of profits, while requiring calculation, is not *inordinately* complex. However, in my view, this places the bar too high. As stated in *Philip Morris FCA* at para 26, the question to be determined is whether "the accounting exercise would be complex and contentious, and […] would result in a lengthy and complicated procedure and related disputes which would complicate and further delay a final resolution of the matter."

[597] The evidence before me is that IPTV is an enormously complex product, requiring complex software, extensive hardware, a massive network of fibre-optic cable, and teams of thousands of people to develop, launch and maintain. The asserted patented features are a small part of the software, which in itself is a small part of the overall product of the Defendants' services. The fact scenario in this case is similar to the one in *Eurocopter* where Mr. Justice Luc

Martineau refused the equitable remedy of an accounting of profits where the landing gear, “an essential piece for the proper functioning of a helicopter,” represented just a small part of the total cost of a helicopter.

[598] Based on the evidence before me, I find that isolating the impact of the individual features at issue in this case, while not impossible, would prove extremely challenging. At paragraphs 315 to 321 of their written submissions, the Defendants list six steps that would be required for an accounting of profits: Calculation of Contribution Margins, Valuation of the Features, Market Modelling, Assessing Non-Infringing Alternatives, Calculation of IPTV Profits, and Calculation of Profits from Bundled Services. I agree with the Defendants that the process would be both factually complex and analytically complex.

[599] Moreover, Dr. Bazelon conceded that if there were problems with any of the steps in the analysis the result would be unreliable. For the Court to be satisfied that an accounting of profits can be reliably conducted, it must be satisfied that every step in the analysis is possible, realistic and will produce a reliable result. Based on the record before me, I am not satisfied that this would be the case here. There is a real risk that the analysis could ultimately be based on flawed assumptions about customer or market behaviour, non-infringing alternatives or competitors, or based on non-transparent analytical decisions in market modeling. The concern here is not that the complicated, time consuming and expensive analysis will fail, but rather that it will produce an unreliable number that would mislead the Court.

[600] There is another wrinkle in this case. A consequence of Rovi's delay in issuing the Patents, as discussed in the section below, is that Rovi is seeking remedies for periods where the Patents were not actually issued. During these periods, Rovi is not entitled to an accounting of profits, and Rovi's remedy is limited to "reasonable compensation" pursuant to s 55(2) of the *Patent Act*. The method to calculate reasonable compensation is not settled but it has been calculated as a reasonable royalty in *Jay-Lor* at para 122. The Defendants submit that it is certainly not their profits. Thus, if Rovi is entitled to elect an accounting of profits, it will be necessary to perform at least two remedies analyses: a determination of profits during the period after the Patents were issued and a determination of reasonable compensation before the Patents were issued.

[601] Because the Patents were issued at different times, if more than one of the Patents were found to be valid and infringed, this may also necessitate differentiating profits and compensation from each Patent — adding further complexity and unreliability to the already overwhelming process.

[602] For the above reasons, I find that this factor does not militate in favour of granting the equitable remedy of an accounting of profits.

(b) Rovi's conduct

[603] As stated in *Voith* at para 117, delay in instituting infringement proceedings is a ground for refusing the election of an accounting of profits. However, the Defendants' complaint here is not that Rovi delayed in bringing the suit, but rather that it delayed in the prosecution of its

patents and does not come to Court with clean hands seeking equitable relief. The Defendants also say it would be inequitable to require them to account for profits earned for claims that were added after they had already launched their products, and after Rovi inspected those products.

[604] The Defendants submit that Rovi lay in the weeds while they spent a decade gaining market share to become leading IPTV providers. Rovi now seeks to seize profits generated through the Defendants' efforts, while it allowed its patent applications to languish in the Patent Office. The Defendants submit that such an outcome is the reason that "equity aids the vigilant, not those who sleep on their rights." I agree.

[605] Rovi does not dispute that there was delay in the prosecution of the Patents.

[606] The 870 Patent was filed in July 1999 but was not issued until January 2017 – a delay of 17.5 years, during which time Rovi waited the maximum possible length of time to request examination and abandoned the application.

[607] The 629 Patent was filed in September 1999 but was not issued until November 2013 – a delay of over 14 years, where once again Rovi waited nearly the maximum period to request examination, failed to pay fees and abandoned the application.

[608] The 482 Patent was filed in October 2001 but was not issued until December 2015 – a delay of over 14 years, where once again Rovi waited the maximum period to request examination, failed to reply to the examiner, failed to pay fees and abandoned the application.

[609] The 585 Patent was filed in January 2004 but was not issued until May 2013 – a delay of over 9 years.

[610] Rovi submits that the Defendants advanced no argument that any of Rovi's conduct is contrary to the *Patent Act*, Patent Rules or their policy aims. It maintains that the Patents were filed, prosecuted and issued in accordance with the law.

[611] Rovi submits that to the extent that the Defendants suggest that Rovi's practices were outside the norm, they cannot make that assertion on this record. It says that evidence of patent prosecution practices falls into the domain of expert evidence and that the Defendants led no such evidence.

[612] Rovi relies on the decision of Mr. Justice Roger Hughes in *Merck & Co v Apotex*, 2006 FC 524 [*Merck FC*] for the proposition that expert evidence would be required before the Court could conclude that a delay in prosecution of a patent was inordinate. However, that is not what the decision says. The evidence before Justice Hughes was that it took almost 12 years from the original priority filing for the patent at issue to mature into a granted patent. He concluded that there was no "factual or expert" evidence that the plaintiff wilfully delayed the issuance of the patent issued for the following reasons:

> [217] No evidence, factual or expert, was led to demonstrate whether the length of time it took to prosecute the Canadian application was unduly long or short. Any comparison with the length of time it took to obtain a United States patent is hampered by the lack of evidence as to whether the prosecution there was unduly long or short. The Court was invited to look at the United States and Canadian file histories and draw inferences from communications with the Patent Offices and prosecuting agents

> and attorneys as to whether Merck had delayed prosecution in Canada. Without evidence as to what patent prosecution practice is and means in each country this Court cannot draw meaningful inferences as to delay or wilfulness.

[613] In the present case, the Court is not being asked to draw any inferences as to whether Rovi delayed prosecution in Canada. The facts are admitted. While delay in prosecution of a patent may not be contrary to the law, a determination of the patentee's conduct is not predicated solely on the legality of its actions — the Court must assess the patentee's conduct (or misconduct) beyond the letter of the law.

[614] According to Rovi, Mr. Armaly testified that Rovi had no strategy to delay the issuance of its patents and the Defendants led no evidence to the contrary. However, this submission completely ignores admissions made by Mr. Armaly in cross-examination.

[615] Rovi was fully aware that the Defendants were raising Rovi's conduct in response to Rovi's request for entitlement to an accounting of profits and injunctive relief. Mr. Armaly was pre-emptively asked in examination-in-chief to comment on Rovi's patent prosecution strategy. When questioned whether it was part of Rovi's strategy to delay the issuance of patents, Mr. Armaly denied it.

> A. No. You know, it's not something that inherently makes business sense, certainly in a world where the patent term is calculated on a fixed amount, 20 years from your first filing. Our goal is to get issued patents that we can present and license to our customers. We usually don't get the same credit for a pending application as we do for an issued patent because people want to know what the ultimate right is. So the longer it takes for a patent application to stay pending in a patent office, the less ultimate term we get. So there is not inherently a business justification for delaying it.

[616] In cross-examination, Mr. Mason meticulously went through the prosecution history of the four Patents with Mr. Armaly. Throughout his cross-examination on this subject, Mr. Armaly bristled at questions put to him and refused to agree, despite clear evidence to the contrary, that there was any delay by Rovi in prosecuting its patent. The exchange reproduced below was his typical response.

> Q. The 870 Patent has a PCT filing date of 15 July 13, 1999?
>
> A. Correct.
>
> Q. And it has an issue date of January 3rd, 2017, correct?
>
> A. Correct.
>
> Q. That is a delay of more than 17 and a half years from filing to issue, correct?
>
> A. That's a time period. I wouldn't consider that a delay.
>
> Q. 17 and a half years of a 20-year patent is not a delay?
>
> A. It's a time period. You gave me one date and another date. I consider the difference between those two to be a time period.

[617] The fact that Mr. Armaly would refuse to admit there was delay in the prosecution of the 870 Patent is very perplexing and undermines his credibility in my eyes.

[618] The exchange reproduced below is indicative of Mr. Armaly's intransigence which can only be explained by a strong desire to avoid saying anything that might be construed as harming Rovi's case.

> Q. Now, let's take a look at why this patent took so long to get issued by the Canadian Patent Office. And if we look at the actual prosecution of the 870 Patent, we will see that Rovi first requested examination of the 870 Patent on June 15th, 2004 and you can see that at page 37 of the PDF, which is the next tab, 7, Your Honour. Do you see that, Mr. Armaly?

A. I do.

Q. So at June 15th, 2004, Rovi requested examination of this patent. You're aware, Mr. Armaly, that there is a five-year limit in Canada to request the examination of patents?

A. While I have certainly been involved with the Canadian prosecution, I would not consider myself to be an expert on Canadian patent prosecution.

Q. You have no reason to dispute that in Canada there is a 5-year limit to request examination?

A. I have no personal reason to dispute that, no.

Q. And as you know, the longer you wait to request an examination, the longer it's going to take you to get your patent issued, generally speaking, correct?

A. Certainly the examination is not going to start until you request it, so yes, the sooner you request it, the sooner the examination starts. How that correlates with issuance might be a different piece.

Q. Waiting five years to prosecute means that you are waiting -- putting five years on to the time to issue a patent at least, correct?

A. It certainly wouldn't issue in that time before you request examination, correct.

Q. Here Rovi waited the maximum time period, five years, yes?

A. I don't know.

Q. Well, you look at the dates, June 15th, 2004, and it was filed July -- the PCT filing date was July 13, 1999. Is that not waiting the maximum five-year period there?

A. I wasn't following the dates, so give me a second to go back and look at the first one. Yeah, we waited close to five years, if my math is correct.

Q. You had less than a month to go before the five years expired, is that fair?

A. Close to five years, yeah.

Q. And I suggest to you that waiting the maximum time period of five years before requesting examination is not the behaviour of a

> company that is interested in obtaining patents without delay. A. Is a question or a statement, sorry?
>
> Q. I suggested to you that a company that waits five years to request examination of a patent is not the behaviour of a company that is interested in obtaining patents without delay?
>
> A. It still sounds like a statement to me, but if it's a question, I don't agree with that.
>
> Q. Rovi would have instructed its patent counsel to wait that period of time before requesting examination, yes?
>
> A. I think our counsel would not do something that we didn't advise them of. I don't know what specific instruction was given here in this specific case.
>
> Q. You expect that the reason why counsel didn't request examination until it did is because that's the instructions it had received from Rovi, fair?
>
> A. Either generally or specifically with this case, correct.

[619] This is an extraordinary admission. Mr. Armaly concedes that general or specific instructions were given to its patents agents to wait to request examinations of its patents, in some cases up to 5 years. The delay resulted in three of the patents issued being deemed abandoned under section 73 of the *Patent Act*. The Defendants established a *prima facie* case that Rovi failed to prosecute the Patents in a diligent manner. The particular circumstances of this case called for an explanation, but none was given. All Mr. Armaly could muster was that delaying the prosecution of a patent "is not something that inherently makes business sense."

[620] Mr. Armaly's credibility was further undermined during his cross-examination when he was asked questions relating to the late applications for amendments to Rovi's patents. He quibbled about who conducted an analysis of the Fibe TV system in April 2013 to assess whether

the system infringed when it was clear that it was done by or on behalf of Rovi. He was also not prepared to acknowledge that the analysis was conducted before Rovi amended the 870 Patent and added additional claims. Mr. Armaly's response was, "I don't know. Wouldn't surprise me."

[621] I have great difficulty accepting that Mr. Armaly, a seasoned patent attorney whose role was largely focussed on overseeing Rovi's patent portfolio and who was called testify specifically about Rovi's patent prosecution strategy, would not be familiar with the prosecution history of the Patents. Feigning ignorance does not speak well for his credibility.

[622] Rovi submits that prior to commencing this litigation, it made significant good faith efforts to negotiate with each of Bell, Telus, and Ericsson. It was only when negotiations had failed that it began these actions. Rovi says that its conduct was entirely appropriate. I disagree.

[623] When considered as a whole, the clear pattern of delay and the late amendments to some of its patents leads inexorably to the conclusion that delay in prosecution of the Patents was a deliberate and integral part of Rovi's business strategy. Notably, over the course of the licensing negotiation, Rovi did not mention the 482 Patent or the 585 Patent to Bell or TELUS. Nor did it mention the 870 Patent to Bell, and only raised claims of the 629 Patent, which are not asserted in these proceedings. Rovi's delay in issuing the Patents and its sly conduct during negotiations allowed Bell and TELUS to fully integrate the allegedly patented technology into their IPTV systems, and gain millions of customers, before many of the asserted claims existed, let alone before the Patents were issued.

[624] A similar strategy is employed by patent assertion entities (PAEs), businesses that acquire patents from third parties and seek to extract more than the inherent value of the supposed invention. That is because, in an *ex-ante* negotiation, a potential licensor will pay only the value of the patented technology. However, in an *ex-post* negotiation, once the technology has been integrated, the licensor can extract not only the value of the invention, but all of the additional costs that stem from redesigning a system to remove the technology.

[625] By failing to prosecute their Patents diligently, Rovi left the Defendants in the invidious position of not knowing which patents were allegedly infringed, while they attempted to maximize the value of their patented technology. During that period when the Patents were pending, because the letters patent were not issued, the Defendants were unable to take any action to have the Patents declared invalid pursuant to subsection 60(1) of the Patent Act. Rovi's attempt to "game the system" goes against the restitutionary purpose of an accounting of profits. The goal of the Patent system, through a grant of a temporary monopoly, is to "encourage invention and to regulate the issuance of patents in Canada" (*Genecor International Inc v Canada (Commissioner of Patents)*, 2008 FC 608 at para 39; *Pope Appliance Corp v Spanish River Pulp and Paper Mills Ltd*, [1929] A.C. 269 cited in *CertainTeed Corp v Canada (Attorney General)*, 2006 FC 436 at para 25. An unreasonable and unexplained delay in prosecuting the Patents prejudices the public and stifles the innovation envisioned by the patent system.

[626] Dr. Bazelon agreed that "patent holdup" occurs when a patent owner takes advantage of the potential infringer's reduced flexibility after they have launched a product and opportunistically tries to extract a larger unreasonable licensing fee, especially using the threat of

an injunction. This strategy has been described as engaging in "pre-litigation conduct […] designed to place the infringer in the most disadvantageous bargaining position"; and delaying "so that the infringer's dependency on the patent is maximized, as is the proportion of profits claimed.": Jeff Berryman, Comment on Norman Siebrasse, Business Method Patents and PatentTrolls, 54 CAN. Bus. L.J. 58 (2013) Vol. 54, 58-67, at 66.

[627] The case before me exemplifies the "patent holdup" problem. Rovi's conduct in this case militates strongly against granting the equitable remedy of an accounting of profits as it would create an incentive for licensing entities to imitate Rovi's conduct.

(c) Bell and TELUS' conduct

[628] An infringer's conduct is a relevant factor when considering whether the plaintiff has entitlement to an accounting of profits. The wilful infringement of the infringer, although not necessary for an accounting of profits to be awarded, can bolster the case for this remedy (*Laboratories Servier v Apotex Inc*, 2008 FC 825 at para 509).

[629] Rovi submits that the Defendants knew of Rovi's patents and still decided to infringe based on the following facts. [redacted]

[redacted]

[630] According to Rovi, this behaviour demonstrates that the Defendants knew about Rovi's patents, knew that they might infringe those patents, but decided to take a calculated risk of being unlicensed. It argues that this is the very "catch me if you can" scenario that calls out for an accounting of profits. I disagree as these are not the facts before me.

[631] Rovi claims that Bell and TELUS knew of Rovi's Patents; however, that is not the case. The Defendants were only shown exemplary patents picked by Rovi and given a glimpse of Rovi's patent portfolio. There is no evidence the claims asserted in this litigation, let alone the Patents, were the focus of the licensing negotiations.

[632] [redacted]

[633] [redacted]

[redacted]

[634] [redacted]

[635] On the record before me, I find that the Defendants behaved responsibly in their dealings with Rovi and that their conduct is beyond reproach. When the Defendants launched their IPTV products, they had a licence from Rovi through Microsoft. Third-party transactions, outside of the Defendants' control, meant that patent coverage was allegedly lost according to Rovi, but only after the Defendants had made huge investments and paid Microsoft/Ericsson for patent coverage. Under such circumstances, it was eminently reasonable for Bell and TELUS to tell Rovi and Ericsson to resolve the issue.

[636] There is simply no evidence of any wilful infringement by the Defendants in this case that would call for deterrent measures.

(d) Whether the patentee practices the invention of the patent in Canada

[637] The evidence before me is that Rovi is not a competitor of the Defendants and cannot deliver IPTV to Canadians. While Rovi may sell software, the majority – up to 80% – of its profits are derived from patent licensing. [redacted], and it routinely licenses its patents. The Defendants submit that this is another reason not to grant an accounting of profits.

[638] Rovi submits that there are sound policy reasons why not practicing a patent should not be a barrier to an accounting of profits. It argues the rationales for an accounting of profits include not allowing a wrongdoer to benefit from infringement, as well as deterrence. Those rationales apply equally to cases where a patentee is a non-practicing entity.

[639] The Federal Court of Appeal has recently confirmed that a patentee that is a non-practicing entity should not be disentitled from electing an accounting of profits: *Seedlings FCA* at paras 75–80. At the same time, the Court recognized that the patentee's decision to license its invention may be a factor for a court to weigh when considering whether to permit a patentee to elect an accounting of profits.

[640] Mr. Justice George R. Locke cautioned against applying a broad principle that a patentee who makes (or intended to make) profits by selling licences to its patent should not be entitled to elect an accounting of profits (*Seedlings FCA* at paras 79-80). He expressed concern about the potential effect of such a broadly defined principle on inventors who recognize that their specialty lies in inventing, and that production and marketing of their inventions are better left to different specialists.

[641] In his expert report, Dr. Bazelon opined that in determining whether an accounting of profits should be available, there is no reason to distinguish between a practicing entity and a non-practicing entity that routinely licences its patents. According to Dr. Bazelon, the decision between being a practicing entity and non-practicing entity that routinely licenses its patents is merely a difference in corporate organization, and there is no reason to distinguish between them. I agree with Dr. Bazelon on this point.

[642] The issue of entitlement of a non-practising entity to accounting of profits ought to properly be considered through the lens of its conduct, rather than on how the patentee chooses to take its invention to market as a matter of business efficiency.

3. Conclusion

[643] After weighing the above factors, I am not inclined to exercise my discretion in favour of Rovi. Its conduct, by itself, is a compelling reason to deny the right to elect an accounting of profits. In doing so, I note that Rovi is not prejudiced as it can still seek damages, presumably a reasonable royalty, which is the compensatory remedy awarded in the vast majority of patent cases.

B. *Rovi's Entitlement to Injunctive Relief*

[644] Rovi seeks an injunction in respect of the 585 Patent, which expires in January 2024. It submits that failing to grant a successful plaintiff an injunction effectively amounts to an expropriation of the plaintiff's intellectual property rights and instead turns the patent system

into a compulsory licence system. According to Rovi, there is no compelling reason not to grant Rovi an injunction in the circumstances of this case.

[645] While I agree that an injunction is a remedy presumptively available where a plaintiff's patents have been infringed, it remains that it is an equitable remedy within the discretion of the trial judge: *Eurocopter* at paras 397-398, 410; *Voith* at para 108. Section 57 of the *Patent Act* makes it clear that an injunction does not necessarily follow from a finding of infringement, providing that the judge "may" make such an order.

[646] Factors considered by Courts in deciding whether to grant an injunction include delay, lack of clean hands, unconscionability and triviality: *Eurocopter* at para 397; *Novopharm* at para 132.

[647] The Defendants submit that the equitable factors discussed in respect of an accounting of profits also disentitle Rovi from an injunction. They say that Rovi's delay and the Defendants' reasonable conduct are both grounds on which this Court should decline to award an injunction. They also point out that Rovi's derives its profits from licensing patents and a reasonably royalty would be sufficient compensation.

[648] During his cross-examination, Dr. Bazelon agreed that patent holdup can be a problem in the patent system because after a potential infringer has launched a product, they have reduced flexibility and an opportunistic patent holder can try and extract a larger, unreasonable licensing fee especially in light of a potential injunction. The abusive nature of this strategy has been

recognized by Canadian commentators, United States commentators, and the Supreme Court of the United States.

[649] In eBay Inc v Merc-Exchange, LLC, 547 US 388 (2006) [eBay], the US Supreme Court held that the generally applicable four-factor test for permanent injunctive relief applies to disputes arising under the Patent Act, and in successful patent infringement action, patent holder's willingness to licence its patents and lack of commercial activity in practicing patents do not preclude it from obtaining a permanent injunction. Justice Anthony M. Kennedy issued a concurring opinion in which he expressed the view that for firms that use patents primarily for obtaining licensing fees, damages may well be sufficient to compensate for the infringement in certain cases, at page 396-397.

> In cases now arising trial courts should bear in mind that in many instances the nature of the patent being enforced and the economic function of the patent holder present considerations quite unlike earlier cases. An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees. See FTC, To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy, ch. 3, pp. 38–39 (Oct.2003), available at http://www.ftc.gov/os/2003/ 10/innovationrpt.pdf (as visited May 11, 2006, and available in Clerk of Court's case file). For these firms, an injunction, and the potentially serious sanctions arising from its violation, can be employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent. See ibid. When the patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest. In addition injunctive relief may have different consequences for the burgeoning number of patents over business methods, which were not of much economic and legal significance in earlier times. The potential vagueness and suspect validity of some of these patents may affect the calculus under the four-factor test

[650] In his paper entitled "When Will a Permanent Injunction be Granted in Canada for Intellectual Property Infringement? The Influence of eBay v. Merc-Exchange" (2012) 24 Intellectual Property Journal 159, Professor Jeff Berryman argues that there are lessons to be learned from the *eBay* decision at page 175.

> eBay demonstrates that it is possible to have a consistent test across all spectrums of intellectual property concerning the availability of permanent injunctions. That test is openly a balancing one and contemplates that an injunction can be declined even if it means that the plaintiff is left to a damages remedy amounting to a form of compulsory license. U.S. experience also demonstrates that abandoning categorical tests does not dramatically change the landscape. The U.S. approach has the advantage that it provides flexibility toward the granting of one of the court's most coercive remedies: a permanent injunction. The need for flexibility is demonstrated with the advent of patent trolls. Under the U.S. approach, the power to use an injunction to maximize exploitative advantage is weakened. (Citation omitted)

[651] I agree with Professor Berryman's comments and consider it appropriate to adopt the US approach here. As I stated earlier, the present case exemplifies the patent holdup problem. To grant an injunction on the particular facts of this case would be signalling that this Court finds Rovi's business practice to be acceptable and create an incentive for licensing entities to imitate Rovi's conduct.

[652] The evidence before me is that Rovi does not compete with Bell and TELUS. Rovi admits that it cannot deliver IPTV to Canadian customers and routinely licences its patents in Canada. It is effectively a non-practising entity in Canada. In my view, it would be inequitable to prevent Bell and TELUS from providing IPTV products which do not compete with Rovi and it is not in the public interest to deny millions of their customers access to features they previously enjoyed. The imminent expiry of the 585 Patents is a further reason to not impose the costs of

modifying Bell and TELUS' systems to comply with an injunction, when such modifications would be for a short period of time.

[653] In this case, good policy and the equities are aligned. Engaging in patent holdup is a business practice this Court should not condone and the Canadian patent system should not be creating incentives for such unfair practices to occur. There was no improper conduct on the part of Bell and TELUS which requires sanction, while to grant an injunction would run a very serious risk of rewarding Rovi's delay through overcompensation.

[654] For the above reasons, I would not be prepared to exercise my discretion in favour of Rovi and grant injunctive relief.

XXI. Summary and Conclusion

[655] The evidence has clearly established that the Asserted Claims Rovi chose to assert against Bell and TELUS are invalid. Rovi's actions are accordingly dismissed and the Defendants' counterclaims are allowed.

JUDGMENT IN T-113-18 AND T-206-18

THIS COURT'S JUDGMENT is that:

1. The Plaintiffs' actions are dismissed.
2. The Defendants' counterclaims are allowed.
3. Claims 346, 456, 721 and 724 of Canadian Letters Patent No. 2,336,870 are invalid and Claim 346 is not infringed.
4. Claims 79, 80, 90, and 91 of Canadian Letters Patent No. 2,339,629 are invalid.
5. Claims 1, 5, 13, 14, 41, 45, 53, and 54 of Canadian Letter Patent No. 2,425,482 are invalid and not infringed.
6. Claims 34, 36, 87, and 127 of Canadian Letter Patent No. 2,514,585 are invalid and Claim 34 is not infringed.
7. The issue of costs is reserved.

"Roger R. Lafrenière"
Judge

FEDERAL COURT

SOLICITORS OF RECORD

DOCKETS:	T-113-18 AND T-206-18
DOCKET:	T-113-18
STYLE OF CAUSE:	ROVI GUIDES, INC. AND TIVO SOLUTIONS INC. v BELL CANADA
AND DOCKET:	T-206-18
STYLE OF CAUSE:	ROVI GUIDES, INC. AND TIVO SOLUTIONS INC. v TELUS CORPORATION, TELUS COMMUNICATIONS INC. AND TELUS COMMUNICATIONS COMPANY
PLACE OF HEARING:	OTTAWA, ONTARIO
DATE OF HEARING:	JULY 13, 2020, JULY 14, 2020, JULY 15, 2020, JULY 16, 2020, JULY 17, 2020, JULY 20, 2020, JULY 21, 2020, JULY 22, 2020, JULY 23, 2020, JULY 27, 2020, JULY 28, 2020, JULY 29, 2020, JULY 30, 2020, JULY 31, 2020, AUGUST 4, 2020, AUGUST 5, 2020, AUGUST 6, 2020, JANUARY 14, 2021, JANUARY 15, 2021
JUDGMENT AND REASONS	LAFRENIÈRE J.
CONFIDENTIAL JUDGMENT AND REASONS ISSUED:	OCTOBER 7, 2022
PUBLIC JUDGMENT AND REASONS ISSUED:	OCTOBER 24, 2022

APPEARANCES:

Sana Halwani Andrew Parley Paul-Erik Veel Kaitlin Soye	FOR THE PLAINTIFFS/ DEFENDANTS BY COUNTERCLAIM

Jacqueline Chan

Steven Mason Fiona Legere Richard Lizius Tracey Doyle Brandon Mattalo Emilie Bruneau	FOR THE DEFENDANTS/ PLAINTIFFS BY COUNTERCLAIM

SOLICITORS OF RECORD:

Lenczner Slaght Royce Smith Griffin LLP Barristers and Solicitors Toronto, Ontario	FOR THE PLAINTIFFS/ DEFENDANTS BY COUNTERCLAIM
McCarthy Tetrault LLP Barristers and Solicitors Toronto, Ontario	FOR THE DEFENDANTS/ PLAINTIFFS BY COUNTERCLAIM