BEYOND THE CURTAIN
HOW DIGITAL MEDIA IS RESHAPING THEATRE

"Digital media can be defined as the numerical representation of media – print, audio and video – for the purpose of delivery, access, sharing and/or communication via digital devices."

Professor Aimee Morrison, University of Waterloo [1]

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Because things are the way they are, things will not stay the way they are.

Bertolt Brecht

INTRODUCTION

Beyond The Curtain: How Digital Media is Reshaping Theatre is a report that outlines a vision for Canada's performing arts community to embrace digital media and technology both on-stage and beyond the stage.

The technological revolution that is sweeping through all aspects of our society, our lives and our work is also impacting theatre and the performing arts. It is changing the way we consume and interact as well as influencing our expectations as to how we are entertained.

Digital media and technological innovations present both opportunities and challenges to our performance communities. On one hand they allow theatre, dance, opera and music the potential to reach new audiences on a variety of platforms, engaging a younger generation with the live performance experience. On the other hand, there are barriers to innovation. Most performing arts organizations face financial challenges. The box office plays a significant funding role so selling tickets to the live show is the top priority. There is little money left over for experimentation with digital media. Unions and guilds are under pressure to modify their collective agreements, but there is a debate on just how much those agreements should change. In addition, the model as to how performers and other creative professionals involved in a theatrical production will be paid has yet to be fully explored. Traditionalists and innovators have divergent views on just how quickly the theatre world should rush into the brave new digital world.

On stage, technologies such as holograms, projection systems, virtual scenery and 3D visual effects have, for companies able to afford them, enabled a new audience experience. Beyond the stage, social media has created instant critics and the ability for performers and audience to interact with each other. For producers it provides the opportunity to develop a one-on-one relationship with their patrons. No longer is the live experience only a shared collective memory for the audience in attendance. Performing arts content is now being repurposed for cinemas, television, mobile devices, streaming and downloads, preserving great performances and giving them a new life on other platforms.

We may not have a choice. Beyond Canada's borders theatre companies are taking advantage of opportunities provided by the digital age. Canadians can now watch the *National Theatre Live*, *Live from the Met* and *Live from Lincoln Centre* at their local cinema, but apart from occasional exceptions, cannot enjoy the best of what Canadian performing arts has to offer.

Theatre has been around for a very long time. It has survived many revolutions and gone through many evolutions. From Ancient Greece, through Shakespeare's time, and to today theatre has always been a platform for sharing ideas and reflecting the social, moral and political culture of the day. Theatre is a community event.

By its very nature theatre is a shared experience that relies on interaction between performers and the audience. Interaction, community and shared experiences are all themes that also underpin the world of digital media. To apply those themes to the world of theatre, which has managed to survive countless shifts over the centuries makes logical sense.

There is no doubt that through collaboration and careful planning the theatre and performing arts community will be able to embrace digital media to reach new audiences, extend their content onto new platforms and harness the magic of technology, ensuring that what we see on stage remains vibrant for generations to come.

STUDY OVERVIEW

Beyond the Curtain is a paper that shares the results of an extensive feasibility and research study conducted between January and September 2011.

The central questions addressed during the project were:

· How is digital media currently used in theatres both in Ontario and beyond and what is the potential for expanding its use?

· How can the content developed for the stage be adapted and repurposed for use on digital media platforms?

· How can theatres use digital media to reach a wider and more demographically diverse audience?

Beyond the Curtain was undertaken by Ballinran Productions Limited and Digital Wizards Inc. with the participation of the Canadian Actors' Equity Association and the Stratford Shakespeare Festival. The study was made possible by the Entertainment and Creative Cluster Partnership Fund, a program of the Ministry of Tourism and Culture, co-administered by the Ontario Media Development Corporation.

The timing of *Beyond the Curtain* is critical for the industry and audiences alike. Theatre is at a crossroads.

"We are all concerned culturally that there is a space for our live performance material. I don't want the only thing available to be a foreign opera company, a foreign ballet company and a foreign theatre production coming in from England. I want Canadian work available so that Canadian audiences can see it."

Arden Ryshpan, *Executive Director*,
Canadian Actors' Equity Association [2]

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"Is classical theatre on the cusp of a brave new world or is it doomed to become a dinosaur?"

Antoni Cimolino, General Director,
Stratford Shakespeare Festival [3]

This question posed by Antoni Cimolino, General Director of the Stratford Shakespeare Festival, reflects the debate that is consuming the performing arts world.

According to Gerd Hauck, Dean of the Faculty of Design and Communications at Ryerson University in Toronto, there are two paths theatre can follow. *"(Theatre) can either embrace the new technologies or it can become a very esoteric art form for a small, educated, intellectual elite."* [4]

This report could not begin to document all the ways digital technologies could be used by theatre companies. However we have chosen to address the potential for the use of digital media through all stages of the creative process – pre-production, production, marketing and in the repurposing of content.

OBJECTIVES

Beyond The Curtain presents the theatre community with options on how to incorporate digital media and new technologies to reach a broader audience. The authors' intent is to identify opportunities and reflect issues of concern created by the use of of digital media in theatre. The objective is to spark discussion and outline ways in which theatre professionals can collaborate more closely with digital media creators and technology innovators.

METHODOLOGY

The study involved the following components:

Primary Research
· Interviews with leading theatre professionals including performers, directors, unions, playwrights, technicians, designers, musicians, producers, arts administrators, technology innovators and screen-based content creators.

· A voluntary online survey, open for more than three weeks and actively promoted by industry stakeholders, which garnered an impressive 426 responses. The range and variety of comments reflected a high level of engagement in the subject of digital media and theatre. The survey results are referenced throughout the report and are included as an addendum.

Secondary Research
· A review that included research on white papers, web sites, news articles and blogs regarding the use of innovative approaches to theatre and digital media.

DISSEMINATION

The report is available to download from our web site **www.stagescene.ca**.

The team behind the *Beyond the Curtain* project is grateful to the many people who took time to speak with us and openly share their thoughts and ideas. We encourage the unions, guilds, associations, theatre professionals and producers as well as others involved with theatre and digital media to freely re-distribute this report to those who may have an interest in the subject.

Oedipus Rex with *Symphony of Psalms,* Canadian Opera Company at the Edinburgh International Festival, 2002. Photo: Douglas Robertson

SETTING THE SCENE

Canadians are blessed with an outstanding theatre and performance culture. Internationally renowned companies like the Stratford Shakespeare Festival and the Shaw Festival attract visitors from far and wide to their critically acclaimed productions. The Canadian Opera Company, the National Ballet of Canada, Cirque du Soleil and our symphony orchestras in Vancouver, Toronto and Montreal are world-class.

Vibrant regional theatres such as Neptune in Halifax, Theatre Calgary, Manitoba Theatre for Young People, Winnipeg's Le Cercle Molière (Canada's oldest continuing running theatre company), Victoria's Belfry Theatre, Theatre Aquarius in Hamilton, Globe Theatre in Regina and the Citadel Theatre in Edmonton have provided high calibre Canadian and international plays to full houses for decades.

The National Capital Region boasts the National Arts Centre English Theatre and the Great Canadian Theatre Company.

In Toronto, Tarragon Theatre, Theatre Passe Muraille, Canadian Stage Company, Young People's Theatre, Soulpepper and Factory Theatre are just a few examples of the diverse range of professional theatre companies entertaining audiences with productions throughout the year while Mirvish Productions and DanCap round out the mix with a wide offering of commercial productions.

Vancouver is home to the Arts Club Theatre which performs on three stages as well as the Vancouver Playhouse Theatre Company which marks its 50th anniversary in 2012.

In Montreal, the Centaur Theatre and Segal Centre are among the best spots to catch English language plays while French language plays abound at dozens of venues throughout the city. Montreal's Geordie Productions has been entertaining children and families alike with English language plays since 1980. In addition to being blessed with a vibrant theatre industry Canada has also produced a number of major playwrights who have provided us with a wealth of original Canadian stories that have been produced across the country.

It is against this backdrop that this report will examine the opportunities and challenges that digital media presents to Canada's theatre and performing arts community.

AN EVOLUTION AND A REVOLUTION

Imagination and magic are at the heart of any good theatre production. The theatre descends into darkness. A hush falls over the audience. The play begins and we enter a new reality.

Unlike other forms of entertainment theatre is set apart because it requires a tacit agreement between audience and actors that as the play unfolds we will activate our imagination and pretend along with the performers that we are being transported into a world of fictional — but real — characters inhabiting familiar places.

How has theatre been able to survive and adapt over the centuries to the changes in society?

In Ancient Greece, and even in Shakespeare's time, theatre was a place of social commentary, satire and drama – with plays that reflected the social, moral and political culture of the day. It was an important shared community experience and accessible to all. People with money were able to sit in the stands and commoners with little or no money gathered in standing room areas on the floor.

> *"I think we need to recognize that theatre is PLAY and audiences are able to suspend their disbelief and will take all kinds of leaps of imagination with us if we ask them to."*
>
> Des McAnuff, Artistic Director, Stratford Shakespeare Festival [5]

"Suit the action to the word, the word to the action, with this special observance, that you o'erstep not the modesty of nature: for any thing so o'erdone is from the purpose of playing, whose end, both at the first and now, was and is, to hold as 'twere the mirror up to nature: to show virtue her feature, scorn her own image, and the very age and body of the time his form and pressure."
Hamlet, Act 3, scene 2.

In this scene Hamlet is lecturing the actors who will soon perform for his stepfather and reminds them that the purpose of playing, from the invention of theatre, has been to hold the mirror up to nature – that drama is a form of truth and not mere entertainment – a theatrical mirror in which we see our virtues and vices reflected back to us in their true shape.

While theatre still strives to reflect the culture and morals of the day, it faces several major challenges in reaching out and appealing to today's audiences. It must compete with a multitude of other forms of entertainment – concerts, movies, sporting events, gaming, television, the web and social media – all of which demand more of our free time, which is increasingly in short supply.

In the past, enjoying the theatre experience has been perceived as a luxury; accessible only to those with a higher disposable income. However, many theatre companies are offering more affordable tickets in an effort to change that view. In Shakespeare's day a box was placed at the entrance to the theatre and patrons were asked to drop a penny in the box on their way in – hence the term 'box office'. Today a night out at the theatre is more expensive than the movies and it takes more than a few pennies to gain admission.

FORGING A NEW RELATIONSHIP

Given the choice in entertainment and the higher cost, theatre is attracting a more mature crowd - leaving the younger generation to question its relevance to their lives.

Jacoba Knaapen, Executive Director of the Toronto Alliance for the Performing Arts (TAPA) believes that cuts in arts education are partly to blame for the decline, particularly in younger audiences. As a result many of her members find they have to divert funds to pay for an educational outreach officer or youth coordinator in order to inform and attract young patrons.

"There's an entire generation that hasn't really been exposed to the arts," she says. "We have to find a way of making theatre cool again. With the Internet and social media we can bring back the 'cool factor' by making an instant connection with the audience – creating an accessibility that most theatre companies don't have right now. Our industry knows it is behind. We all recognize the fact that we need to leap ahead." [6]

Many theatre companies have decided to embrace the change and find ways to bridge the generation gap by creating live theatre that entertains and stimulates this evolving and more connected audience.

Under the leadership of Antoni Cimolino the Stratford Shakespeare Festival is examining and experimenting with the relationship between audience and performance.

Des McAnuff (left) rehearsing *Jersey Boys*, 2009 photo: Craig Thompson

"Our current Artistic Director, Des McAnuff, is committed to exploring the full potential of modern stagecraft to meet the expectations of a generation that has grown up accustomed to a certain kind of visual spectacle in its entertainment," says Cimolino. "The relationship between audience and performance needs to be altered in order to keep young audiences engaged and attending theatre. Yes, we must experiment, sometimes radically, and be prepared for the experiments to fail, but we must never deliberately 'dumb down' what we do because we think it will be too difficult for the iPod generation. Such thinking would do a disservice to our art and it would do a disservice to our youth." [7]

McAnuff's experiments include bringing a cinematic vision to his productions at Stratford. The use of feature film style music scores, Hollywood sound effects, spectacular lighting, digital video projection and film-like transitions between scenes have brought attention to a style of stagecraft that is intended to appeal to younger audiences.

"I think we are simply using stagecraft to create a world that is more familiar to the audience, " says McAnuff. "I believe that audiences are pretty open minded by and large and I think young people in particular want to have their worlds rocked by theatre." In his 2009 production of *Macbeth*, the play opens with a violent battle scene and the audience is instantly transported to a battlefield.

"It was no different in Shakespeare's day when they used trap doors and visual effects to create a powerful visceral experience for the audience. So I think this is completely traditional, what we are doing," says McAnuff. [8]

Audience expectations of how a production is presented are merely one facet of changing desires and tastes. Here are some of the expectations of this new, more connected, theatre-goer:

· More exciting use of visual effects and technology on stage.

· Interacting with performers via social networking.

· Glimpsing 'behind the curtain' to see the backstage magic of the creative process.

· Commenting on what they see via personalized reviews.

· Consuming additional background information and content on a play.

· Owning a copy of the performance they've just seen for future viewing.

The new audience relationship has not only changed the way theatre companies create theatre, but also the way they market and promote their productions. With social media already playing a large role in the entertainment industry young audiences are used to being connected to performers in a way that couldn't be experienced in previous generations. They expect to be able to follow actors on Twitter, communicate via Fan Pages on Facebook and stay connected beyond the stage.

In an interview with Arden Ryshpan, Executive Director of the Canadian Actors' Equity Association, the topic of blogging and tweeting by performers prompted some in-depth discussion. She explained that some contracts with actors state that they will not blog or tweet. "They consider this 'work' and want to be compensated for it," she says. She also explained that there seems to be a generation gap within her association relating to the acceptance of social media between some of the newer talent versus the seasoned veterans. For example younger performers are more comfortable with being plugged in. They are accustomed to blogging or tweeting about rehearsals and performances and having a camera in the rehearsal hall. The footage from those rehearsals is often used in promotions and behind the scenes videos. On the other hand many veteran actors don't want their rehearsals recorded because they don't believe the 'private creative process' should be captured as they experiment with their performances. [9]

 The question for theatre companies and individual artists to consider is: would young audiences be more apt to attend a performance if they felt some kind of connection with the performers before the production?

One respondent to the *Beyond the Curtain* online survey had the following comment:
"From a musician's perspective, using digital media to offer a preview of a performance has the potential to increase the marketing of events that are usually such a short run that the media review is often published after the event has closed. Generating buzz through previews, dress rehearsals and interviews with artists in a digital medium seems like a real opportunity."

The new audience also plays an important role in the marketing and promotional strategy for a production. This relationship will be more thoroughly investigated in the Social Media marketing section of this report (*see page 26*). In essence the new audience provides the first reviews and feedback on a production almost instantly after a production has finished sometimes even during intermission. The access and knowledge this audience has to social media makes them an important relationship to nurture.

In the following sections we examine how the theatre community is addressing the demands of the changing audience and how digital media and technology are influencing the creative process and the way theatres do business.

"The timing (of this report) could not be better. There's a huge pent-up demand. We know that people are dying to experiment with technology artistically. We know that they want to use digital technologies for promotion, sales, marketing, audience development, outreach, education – all of the things that are going to sell the show now and in the future. People are anxiously thinking about how do we find new revenue sources. But we're all caught in this box. We have no access to innovation funds so we are desperately looking for solutions."

Lucy White, Executive Director,
Professional Association of Canadian Theatre. [10]

TECHNOLOGY

It is clear from our research both in Canada and beyond that artists, directors, musicians and all creative personnel associated with live performance are trying to find the right balance as they embrace digital technology. While there is cautious optimism, serious discussions are taking place on how best to move live performance into the digital age.

There are new technologies introduced every day and there are times when an established technology is used in a different way from which it was originally intended.

Although artistic directors may be challenged by a training/skills gap as well as by budgetary constraints there is still a broad array of technological innovations at their fingertips. This report could not begin to document all digital technologies that might be suitable for use in live performance, however we have chosen to address a few that are currently being used in innovative ways.
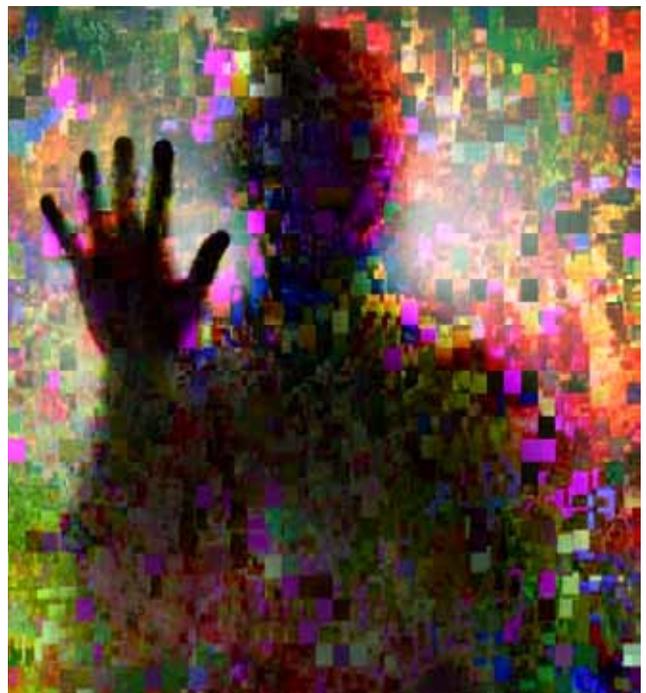
GESTURE TECHNOLOGY

GestureTek is the inventor, pioneer, multiple patent-holder and world-leader in camera-enabled gesture recognition technology for presentation and entertainment systems. In 1986 the founders invented and shaped the field of 'applied computer vision' for computer-human interaction and have since continued inventing new video gesture control technologies. While their product offerings are targeted to multiple industries the technology was first developed and used in performance. [11]


A video on YouTube entitled *World's First Virtual Reality Musical Performer* shows founder Vincent John Vincent in performance dancing and playing virtual instruments with the original 80's technology. Vincent created the technology to be immersive to expand creativity and allow actors and dancers to play virtual instruments and dance with virtual partners. [12]

Vincent John Vincent in the World's First Virtual Reality Musical Performer, 1986

Today the company's video gesture control technology lets users control multi-media content, access information, manipulate special effects, even immerse themselves in an interactive 3D virtual world – simply by moving their hands or body, delivering gesture-control without the need to wear, hold or touch anything.

GestureTek technology is now used by multiple industries - museums, broadcast, advertising, digital signage, education, healthcare, and mobile, to name but a few. Staging and performance is a potential growth area for the company now that costs associated with the system (projection units, computers and screens) have come down in price.
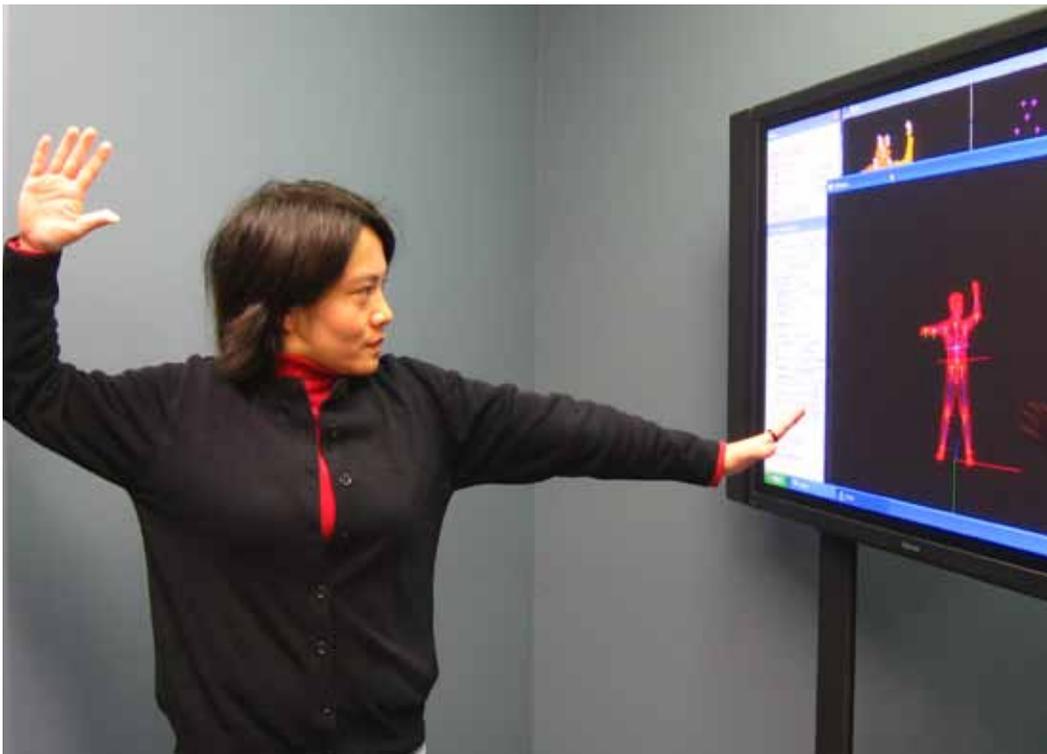
Images courtesy of GestureTek.
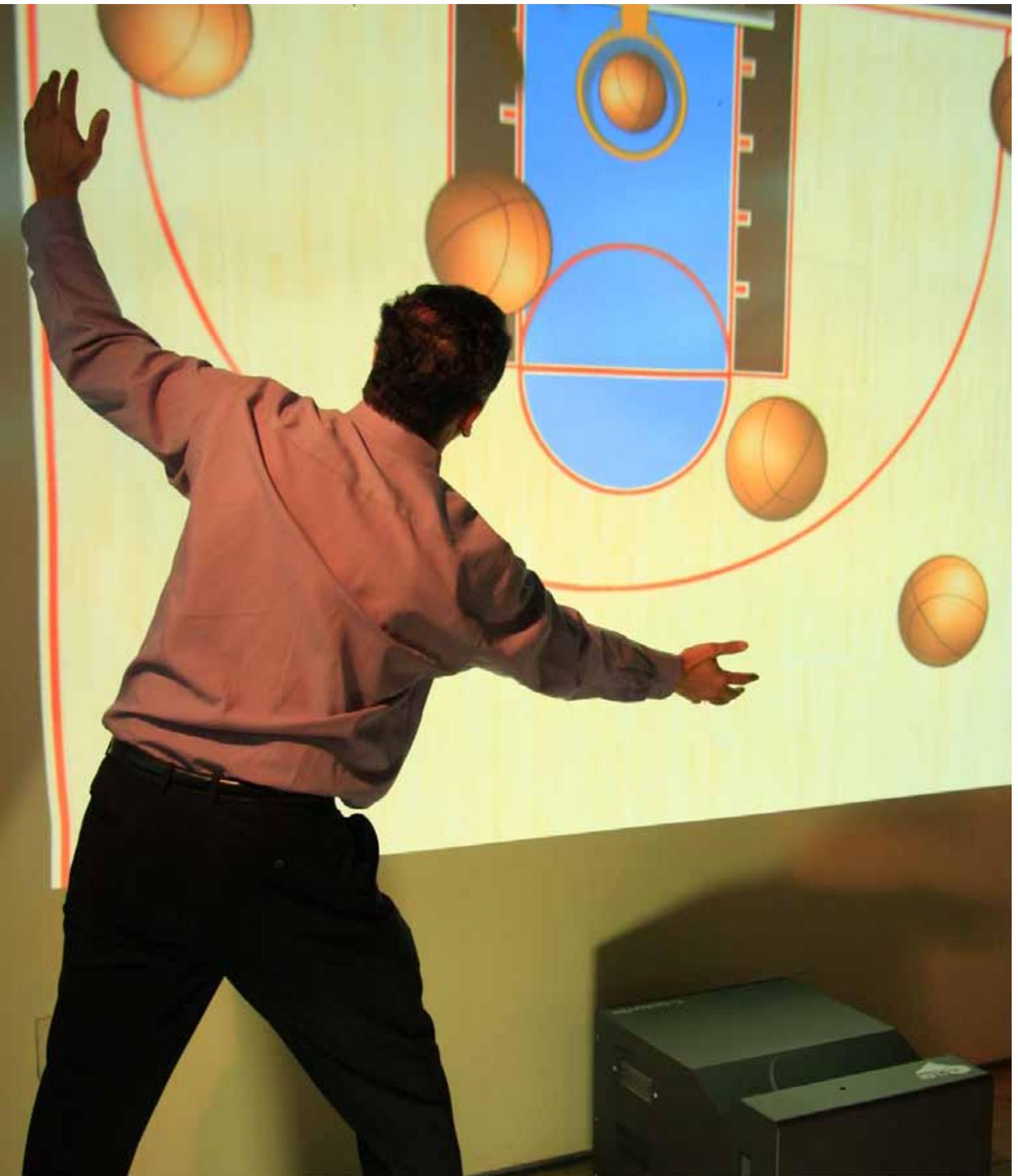
Digital Projections

When projection of images or video is used within a production there are a number of product choices. For this report we will focus on the Christie® MicroTile®.

MicroTiles are portable projection units 16 by 12 inches each that can be snapped together in a wide variety of configurations. They offer a much higher resolution providing a more life like image projection and offer colour reproduction capability that exceeds standard LCD displays by over 50%. In terms of angle of viewing and distance they can be viewed at any distance and up to a 180-degree angle. They are lightweight and modular and have ultra fine seams between modules for an invisible flow of content over the tiles.

Before the MicroTile product was released there was pre-market research conducted by the University of Waterloo with members of professional theatre companies in Southern Ontario, large and small, commercial and experimental, established and new. The study 'Seeding a Lead' conducted in 2009, intended to explore the live theatre industry's reception of a pre-market Canadian display technology. There were a number of benefits to both the theatre participants and to the manufacturer. The feedback from theatre personnel could help the company shape product design and development to accommodate theatrical applications or needs for this technology.

After viewing a short play written for the purposes of the research those in attendance offered their feedback. Respondents ranked highly the ability of MicroTiles to integrate digital content, including 'their flexible configuration and reconfiguration,' 'their ease of use,' 'the creative possibilities' and 'the emerging audience expectations for new media'. Among the presence factors cited were 'high resolution,' 'a high contrast ratio (that allows the images to be seen in all lighting conditions),' and 'the ability to build non-rectangular sets, props, and displays'. [13]

MicroTiles offer an exciting and unique way of introducing digital technology to live performance. To date large and small productions have utilized MicroTiles within theatrical performance including the 2011 production of *Jesus Christ Superstar* at the Stratford Shakespeare Festival and also in the 2011 University of Waterloo Humanities Department production of *Dissocia*.

Gerd Hauck, Ryerson University's Dean of the Faculty of Design and Communication, believes that the MicroTiles have potential because 'you can throw light onto a MicroTile and not lose the image'. If money was not an issue, he says he would utilize MicroTiles all around the theatre to create an immersive experience for the audience. Even so, he notes that given how quickly new technologies emerge, MicroTiles may be supplanted by new large flexible screens and other projection technologies. [14]

Christie MicroTiles in use at the London Stock Exchange. Photo: Christie Digital
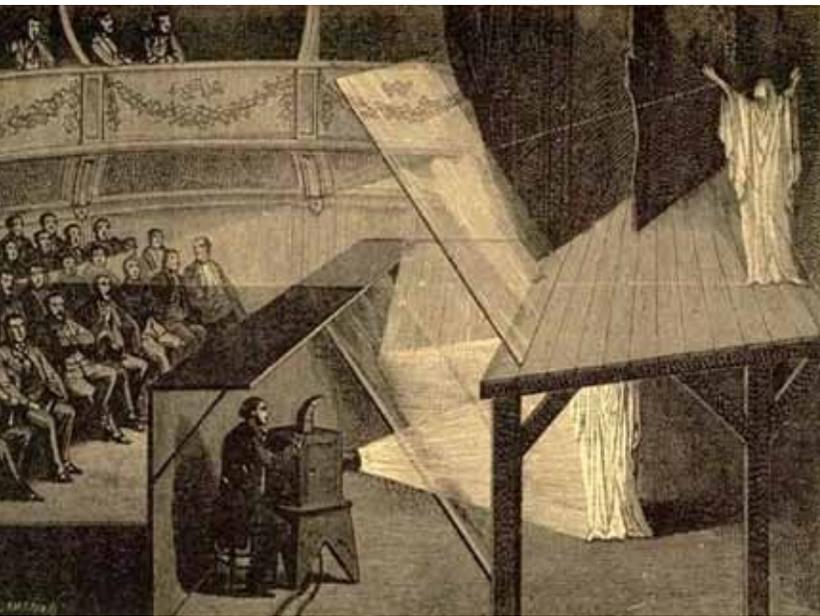
HOLOGRAPHIC PROJECTION

A recent advance in theatrical stage design, which involves the use of holographic images, actually owes its inspiration to an illusion called 'Pepper's Ghost' which was invented in England in the 1850s by Professor John Henry Pepper.

'Pepper's Ghost' startled theatregoers at the time with an effect that allowed people or objects to slowly materialize into a scene. In this illustration the 'ghost' is an actor located forward of and below the stage floor. The glass pane creates a reflection that is giving the perception of the ghost on stage. [15]

Michel Lemieux and Victor Pilon of Montreal's Lemieux Pilon 4D Art have been applying technology in their shows for the last 30 years, utilizing everything from 3D projections to holograms. What makes their productions so rich how they integrate a mix of technologies: holograms, projections, real-time camera projection interacting directly with the actor, all seamlessly blending so as to disappear for the viewers.

For one component of their work, they have co-opted the 'Pepper's Ghost' technique which uses invisible screens and reflections to create the illusion on stage. Lemieux Pilon has mixed it with high technology, digital videos, and computers to create this kind of simulated movement.

La Belle et la Bette. Théâtre du Nouveau Monde, 2011. Photo: Victor Pilon

One production that demonstrated the company's technological innovation was the 2011 Théâtre du Nouveau Monde staging of *Beauty and the Beast.*

"Technology is a tool, like the voice of a singer is a tool, like the body of the dancer is a tool. It should disappear in the process of expression and become pure emotions," says Michel Lemieux. "Technology is like a violin that is always evolving, one day it has four strings the next it may have five." [16]

VIRTUAL SCENERY

Imagine if Banquo's ghost was a holograph projected onto the stage or if the enchanted forest in *A Midsummer Night's Dream* were made more realistic with digital waterfalls, birds and trees or if the dramatic scene of Siegfried slaying the dragon were enhanced by projection and visual effects that gave the audience the experience of a three-dimensional forest. These techniques are now within reach thanks to a Montreal technology company that has developed software to bring scenic design and visual effects to the next level of imagination.

Roger Parent with touchscreen. courtesy of Realisation.net

"We're trying very hard not to upstage the music. It may be revolutionary in terms of the technology invading the sacred opera space, but it's there to serve the purpose of the music. If we do our stuff well, it's like the soundtrack to a good film. You won't notice it."

Roger Parent, President, Realisations.net [17]

It's not surprising to learn that Realisations.net grew out of Cirque du Soleil. The company was started in 1997 by Cirque's Executive Producer Roger Parent who had developed the production model that turned Cirque from a single touring show troupe into a multi-show company which now tours worldwide.

As anyone who has seen a Cirque 'spectacle' will tell you these types of boundary-pushing visual effects, lighting and sound have set a standard for technology and design in performance settings.

Most of the company's clients are in the hospitality industry – clubs, hotels, restaurants and casinos that use Realisation's design skills to create one-of-a-kind atmospheres.

Based on the company's track record in scenic design for the hospitality industry, Realisations.net was asked to provide the software and interactive video effects for Wagner's *Ring Cycle* at the Metropolitan Opera of New York. The company worked in partnership with Maginaire whose technology consists of projecting computer generated environments using a constantly updating virtual camera and lighting system.

These effects then work in sync with the movements of the scenic backdrop while matching the on-stage lighting, creating the illusion of a 3D hologram. To achieve the 3D effect, a moving piece of scenery rotates along a horizontal axis and computer generated projections follow it in real-time. Without physically moving, the audience has an altered point of view. The projection being presented tricks viewers' minds into perceiving objects as three-dimensional. This technique takes advantage of the lack of precision in the human eye when perceiving depth at a distance.

In the case of *Siegfried*, the third installment in the Ring cycle, directed by Quebec's esteemed theatre practitioner Robert LePage, the goal was to create a forest dwelling for the title character complete with tree roots, vermin and a snake.

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## DIGITAL MEDIA IN THE CREATIVE PROCESS

As in all complex creative endeavours, success in a digital world begins with an essential step: planning. Plays are developed, written, workshopped, produced and promoted electronically. Digital media is used in set, costume, sound and lighting design. Musical scores are written and performed on computers and digital instruments.

Alex Mustokas, Artistic Director of the Drayton Festival in Drayton, Ontario, used digital media in making casting decisions for his 2011 season, hiring two performers based on the Youtube clips they submitted.

At Drayton, computers and digital instruments are used to map out and block entire performances even before the actors begin rehearsal.

One of the pioneers in the field of digital stagecraft is Doug Paraschuk who has spent years perfecting his skills at the Stratford Shakespeare Festival as well in the staging of major international festivals and events including the opening and closing ceremonies of the 2010 Vancouver Winter Olympics.

Opening ceremonies of the 2010 Vancouver Olympics (below, right and overleaf).

"I think digital technology, video production, content generation is something that needs to be thought through right from the very beginning. Very often the designer might start visualizing some of these things and how they might be integrated into the production before they even meet with the director," says Paraschuk. [18]
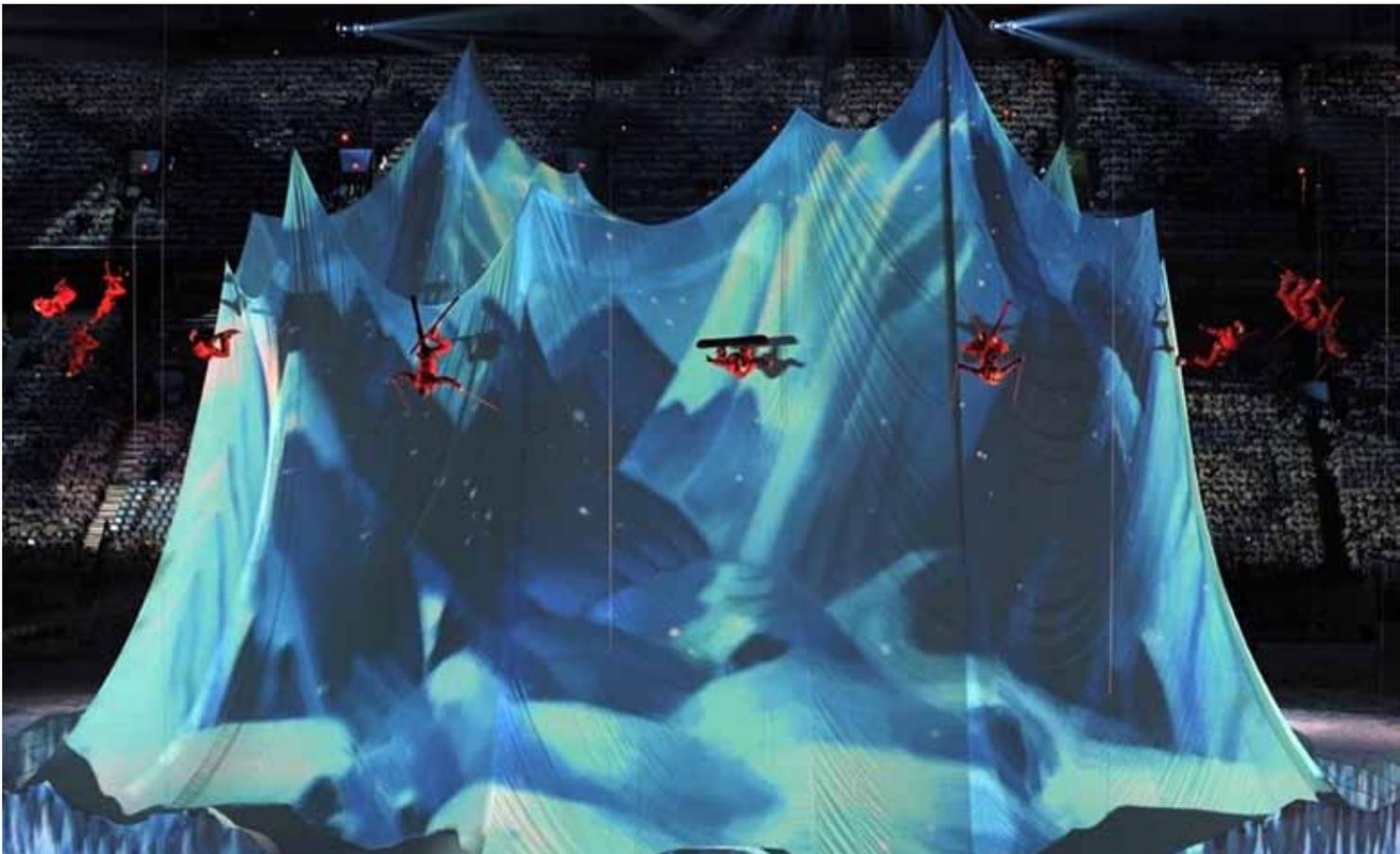
For the Olympic opening ceremonies Paraschuk made extensive use of computer simulation. After all it wasn't practical or possible to 'try things out' in BC Place. "It took half a year to generate the content. It took ten servers to deliver the content. It would take 24 hours and a team of six people to re-render a change. So you need to think of the logistics of all that depending on the size and scale of the production you're doing."

Despite his extensive use of digital media from productions like the Olympics to presentations in Stratford and the Charlottetown Festival, Paraschuk stresses that it's not about the technology.

"The creation of the content is actually the most important thing," he says. "For example, at the Vancouver Olympics the content literally cost millions of dollars. But if the content is poor you can have all the best technology in the world and the best resources in the world and it's just not going to look good and it's not going to feel very integrated."

Writer/ Director Marcia Kash agrees with Paraschuk. In 2011 she was hired to direct *Anne of Green Gables* at the Charlottetown Festival. Part of her mandate was to 'revitalize' the 35-year-old production – a daunting task when the show begins with the refrain 'Anne of Green Gables, never change.'

"At Charlottetown we decided to use video projection...and it added an element that supported the show in a way that conventional lighting could never have done," Kash says. "It helped give it a context, give it a dimension, give it a world of fantasy. What we were aiming for was to tell the story in a 21st century way. There's a quality of storytelling that brings it into a sound-bite world which helps tell the story to a younger audience." [19]

At the core of any theatre production, regardless of the technology used, is the calibre of that storytelling. "Digital content needs to be born out of all the original creative thinking," says Paraschuk. "It's basically just another scenic element, another way of supporting the text, the music or the drama."

He points out that there are telltale signs when productions are simply trying to achieve stellar visual effects for the effect's sake. "They seem to think, 'oh, we're going to layer on some video here because there's a hole', whereas when it's thought through from the beginning it becomes integral to the production."

Story aside the use of digital media technology comes down to a question of affordability, says Ron Ulrich, Artistic Director of Theatre Aquarius in Hamilton. "What is the biggest mistake productions make? Trying to impose it. It (digital media) has to support the action," says Ulrich.

"We're doing a rock 'n roll story at Christmas time and there are two ways to go: we can use projections to just tell the story of the past or use them to seamlessly integrate scenes with the past and move them in to the next time frame. You have to ask 'what can you afford." [20]

"The creation of the content is actually the most important thing"

Doug Paraschuk [18]
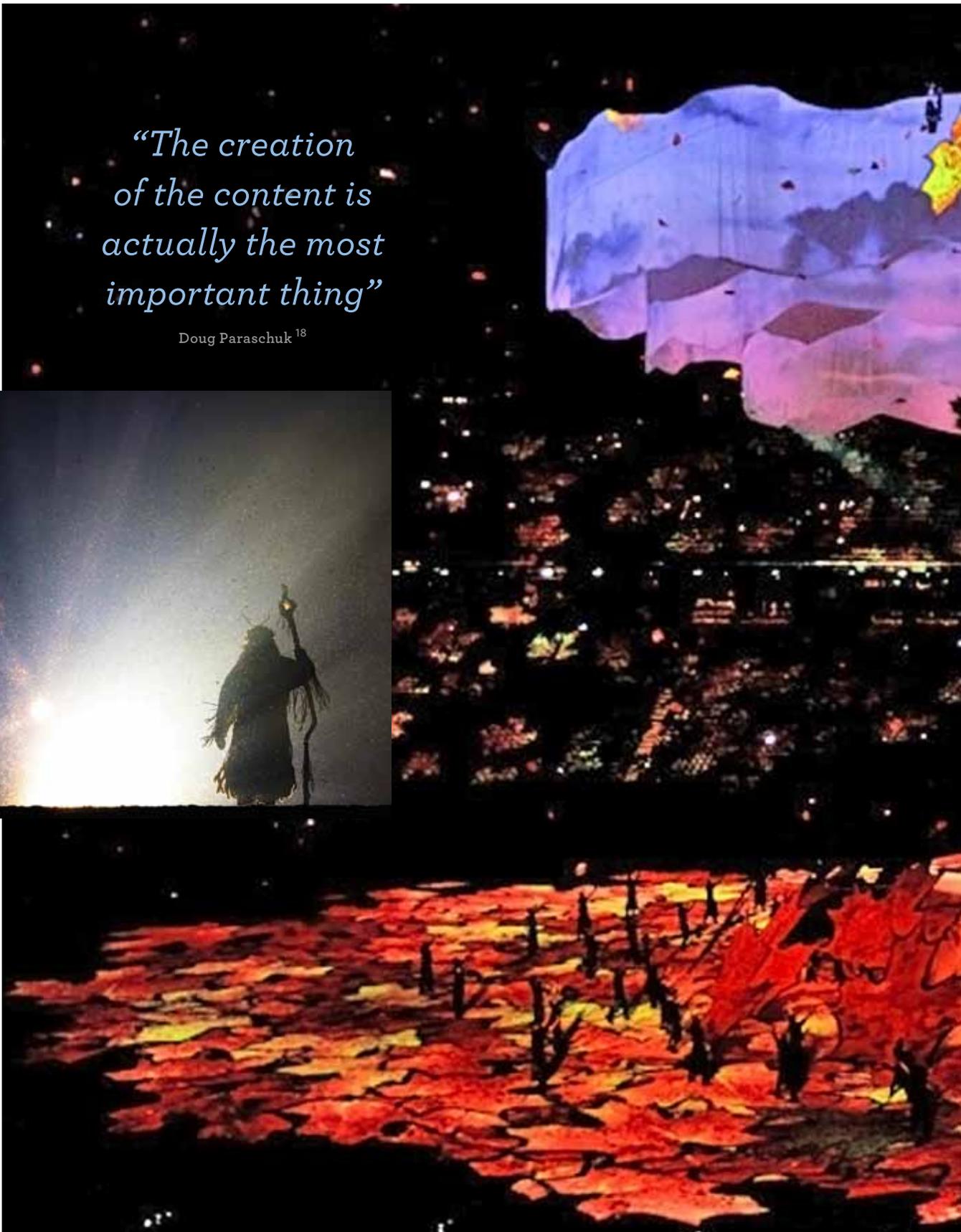
"It has to start with the designer and the director who say we can use these elements to further the artistic vision or the writer's intention for the script. The thing that digital media can do within a production is move all those productions into the modern age." says Ron Ulrich.

Eric Coates, Artistic Director of the Blyth Festival, in Blythe, Ontario, and President of PACT (Professional Association of Canadian Theatre) agrees. "I would go so far as saying the real cost issue is not so much in the technology. It's in the human resources - hiring a designer who can do it properly."

Digital elements can increase tech and rehearsal time, he says, adding that duplicating digital effects in a rehearsal space is not usually practical. [21].

Richard Rose of Toronto's Tarragon Theatre also finds that digital technologies present a challenge because rehearsal halls are not as well-equipped as the on stage environment. [22]

The adoption of digital media technology in the production workflow is also breaking down traditional union job classifications and seniority rules.

Many theatres are governed by IATSE, the International Association of Stage and Theatrical Employees. Their members are called 'stage-hands', a job description that encompasses everything from prop makers to sound and lighting technicians. Traditionally, stage-hands are hired by the theatres on an as-needed basis. Seniority dictates the hiring priority. However, the new technology requires advanced skills that senior members of the union may not have. Therefore,in many instances skills are supplanting seniority in hiring decisions.

"The technology learning curve is very high," says Mike Walsh who works as a stage-hand, sound designer and engineer at the Stratford Shakespeare Festival. He is also secretary of IATSE Local 357 and board member of the Associated Designers of Canada (ADC).

"Who gets a job has a lot to do with seniority. There's a bunch of hot new young guys like me who jump the seniority list because there are a lot of computers in all of the shows," [23]

Technology is also impacting other professions in the theatre. In the instance of stage design, Eric Coates explains, "the ADC – the designers' association, has determined, and rightly so, that set designers can't just be asked to morph into video design without being compensated so there are now new minimums." That, he says, puts pressure on his bottom line.

Adopting digital design into a production impacts the rehearsal and production schedule, which can also affect cost. "It eats up a huge amount of programming time," says writer/ director Marcia Kash. "Technology is an expensive element in theatre. In terms of – not just hiring the guy, finding the content, that stuff, but in the tech time because every change you make, everything that you adjust takes time."

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"We went through the same issues with moving lights," says Stratford Shakespeare Festival technician Mike Walsh. "Management thinks that moving lights will save time from hanging lights but we now spend more time programming those moving lights once they are in place."

Theatre management, the creative team and the unions all agree that training on new technology must be a priority. "A lot of our crew members are very keen – they're interested in training," says Anita Gaffney, Administrative Director of the Stratford Shakespeare Festival. "For example, there's quite a bit of technology in *Jesus Christ Superstar* so the techs on that crew were really embracing it – eager to get involved." [24]

Many theatres have ambitious visions for moving performance into the digital realm. However, there are some barriers to realizing some of these creative aspirations.

> *"My budgets are historically set to accommodate a lighting designer, a set designer and costume design. Quite often set and costumes are combined into one person. If I want to put digital design in a production, I'm really going to have trouble."*
>
> Eric Coates [21]

"A lot of it has to do with how often you get to use the technology," says designer Paraschuk. "Again it's analogous to moving lights. If you're in a theatre that uses moving lights then technical directors tend to know about moving lights because it's part of their daily dialogue with crews. So if you're going into a theatre that has experience with digital media you've got a better chance of meeting a technical director that understands the issues.

"Most technical directors are very smart people so if they don't know about it they'll go out and find the resources, they'll look in to it – they'll find out what they need. More and more theatres now have crew available in their locals who actually have an understanding of video production and video servicing and understand how the servers work and how to operate the software," says Paraschuk. Even if crews have been trained on the technology, without regular experience, skills can become rusty.

"Here (at Stratford) I build four shows a year then sit and run them for about five months," says Mike Walsh, who wears two hats, both as a sound designer and as a stage-hand operating the lighting board. "Every year I have to dust off the cobwebs when a designer comes in and says 'I want the lighting console to do this' and I say 'I'm sure there's a way we can do that'. I just have to figure it out again because I haven't done it for two years."

In the survey conducted for this feasibility study respondents shared their opinions on the potential for digital media and technology.

"An on-line forum should be set-up where digital artists can meet up and skill sets and specialties can be sourced." Survey Respondent

"As a lighting designer I think digital media, properly and tastefully done can be an economical alternative to bulky sets especially if a show is destined to tour." Survey Respondent

Beyond The Curtain found that the use of digital media technology in production varied depending on the resources of the theatre company. Smaller theatres, with the exception of experimental theatre, were not able to do as much as larger companies with longer runs and larger budgets.

Jacob Zimmer, Artistic Director of Toronto-based company Small Wooden Shoe, noted many instances in which he would have liked to incorporate more digital media if his budget allowed. [25]

Reluctance to use digital media can also be an artistic choice as it is in the case of Blyth's Eric Coates. "The only digital media we've used on stage are very rudimentary projections. There's been no real desire artistically, aesthetically, to depart from the live person speaking in front of a set." [21]

Internationally, there are a number of examples of how theatre is pushing the digital boundaries when productions enter the planning and design stage.

Evan Webber and Chad Dembski in *Dedicated to the Revolutions*, Small Wooden Shoe, 2009. Photo: Ömer Yükseker

In the U.K., Soho Theatre has developed 'Soho Digital' which aims 'to commission and present interactive projects that complement the main program, attract new audiences in new ways, and explore new forms of storytelling and performance.' To support this effort they have established 'Theatre Sandbox' which is a new national commissioning scheme for theatre makers to research and develop experimental pieces of performance which use pervasive media technologies.

One such example is DROM, a street game designed to run in parallel with Soho's production of *Shraddha*. DROM invited people to playfully engage with the themes of the play, using a GPS-enabled caravan in London to highlight the challenges faced by Britain's Romany and Traveller communities as they try to maintain their centuries-old way of life on the road. The game deepened the audience's engagement with these themes and attracted a new constituency of gamers and digital press to Soho. The caravan became a performance space as well. Soho Digital also offers writers workshops, playwriting for the iPod generation, and a master class on interactive location-based theatre, among others. [26]

Jacob Zimmer and Aimée Dawn Robinson in *Dedicated to the Revolutions*, Small Wooden Shoe, 2009. Photo: Ömer Yükseker

When discussing the combination of technology and creativity one cannot ignore the influence of Quebec master Robert LePage and his talented team at Ex Machina where the philosophy is that the performing arts - dance, opera, music - should be mixed with recorded arts - filmmaking, video art and multimedia.

In an excerpt from an interview with Robert LePage the Metropolitan Opera's Elena Park asks, *"Is there any concern that the technology could upstage the story or the performers?"*

"I think that you have to remember what opera is about. Everything is centered on this larger-than-life voice. You're working with sopranos and tenors and baritones and basses who are larger than life, who convey larger-than-life emotions and feelings and ideas. So the idea is to bring these exciting new tools and put them at the service of that central thing, which is the humanity of the voice. If you use the technology just as a kind of gadget or to try to show that you're more clever than the next guy or that you can afford these things, then it's off, and it's going to be dismissed very early on not only by critics but also by the audience." [27]

There are many creative professionals in the theatre community who are putting digital media technology into action. One such pioneer is Alison Humphrey, a playwright, director and screenwriter. For her Masters of Fine Arts thesis at York University, Humphrey is merging stage and screen, using motion capture technology similar to that seen in James Cameron's recent blockbuster *Avatar.* Her premise draws on ancient Greece's Minotaur myth and the fantastic magic associated with the great god Dionysus. The production will use live actors on stage attached to sensors to drive three-dimensional characters who will appear on screen. The audience will be able to see both modes of performance.

Humphrey believes her production experiment will be an important motivator for getting the younger generation into the theatre. "People will be drawn to something that just feels like an event and is a reason to get out of the house and go spend some money to see something on the stage." She understands the debate surrounding how much digital media is needed in the theatre and whether its presence cheapens the art form. However, she firmly believes that theatre is truly about the shared experience and not the various rules about what is and is not 'allowed' on the stage. [31]

LIVE PERFORMANCE REPURPOSED

Live performances have an attraction all their own. The audience is part of the experience. Performers and the audience are energized by each other. However once a production is completed the excitement of being part of that event is lost forever to those who weren't able to attend. As a result great productions and great performances become part of a small collective memory. There are no reruns.

Theatre, dance and musical performance companies have been slow to adapt to the digital world, mainly because their funding is tight, rehearsal schedules are limited, union agreements are restrictive and distribution channels are undeveloped.

There have been a few stellar examples of content repurposing on the international stage. New York's Metropolitan Opera Company has been offering live performances in designated movie theatres often to sold out audiences as has the U.K.'s National Theatre. Here in Canada, the Stratford Shakespeare Festival has experimented with cinema presentations of *The Tempest* and *Caesar and Cleopatra* and the National Ballet of Canada has presented *The Nutcracker.* But the funding is not available for even the most successful companies to follow these examples on a regular basis.
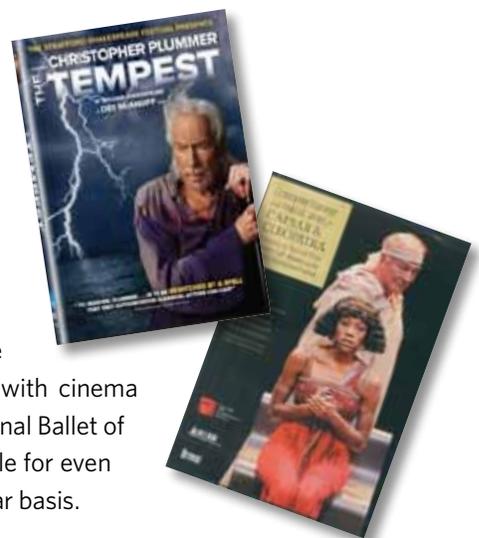
Nevertheless, there are many who believe that digital distribution of live theatre productions will only help sustain and grow the art form. "We must understand that Broadway will see the benefit of somebody in Omaha, Nebraska seeing an opening night of a Broadway production. This is what's going to happen," says Perry Rosemond, who has been creating, producing and directing international television for over 40 years.

Rosemond recognizes that the current business model between theatre companies and the unions in Canada greatly diminishes the chance of success when it comes to digital promotion, marketing and distribution of Canadian productions. "There clearly has to be equity in the property for all involved," he says. [32]

In spite of this concern, Rosemond cannot help but feel energized by the prospect of distributing plays beyond the stage. "Isn't there something magical about opening night? What if opening night went out live across the country at the same time it was playing live at Stratford. Now there's something exciting."

In our industry survey of more than 400 stakeholders we asked two questions on the subject of repurposing.

Do you believe people would be willing to pay to download or view a digital version of a live performance captured for digital distribution, if it was well priced?
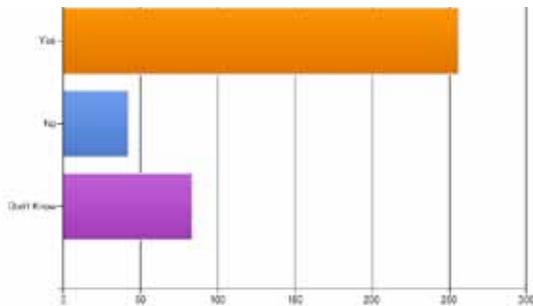
If all parties involved were to receive a financial benefit from the sale of digital versions, do you believe it is a good idea?
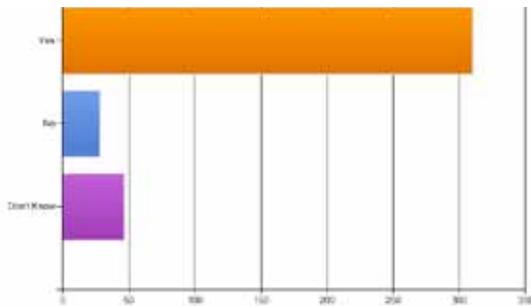
During our study, discussions with unions and theatre organizations indicated that there is a need and keen interest to develop repurposed content. However, repurposing content for the screen has been slow to take hold.

· Government funding, donations and box office revenues are allocated to what goes on stage.

· There is little money left over for experimentation with digital media.

· Recording plays for future use is costly.

· The model as to how performers and other creative professionals involved with a theatrical production will be paid has yet to be fully explored.

· Arts programming is disappearing from mainstream Canadian television.

The Canadian Opera Company has developed an online learning centre on their website. Managing Director Rob Lamb's wish is to move toward the Berlin model of offering cinecasts through theatre, Internet broadcasts and mobile content.

In his opinion the unions and arts organizations need to come together to make this a reality because it is less about revenue and more about building a future audience for the arts. He suggests that the unions and arts organizations come together for a workshop to discuss how to make this a reality.

Lamb agrees that there is a need for a top-up on the performance fee for artists but says that the current model adds up to a 'triple-dip' for three platforms: live, radio and theatre. [33]

There is also a shocking lack of Canadian performing arts content available in Canadian classrooms. In a country trying to attract young audiences to theatre this represents an untapped market. In our industry survey there were comments expressing frustration at the lack of Canadian performing arts content in general.

"Performances should be recorded at quality levels and broadcasted to students in remote areas with little financial penalty to the theatres producing them...we should be encouraging youth to fall in love with theatre." Survey Respondent

"I see a very high value in making performances available where they would not otherwise be available. I do not highly support the current practice of regularly providing the Metropolitan Opera to Vancouver audiences, which negatively impacts Vancouver Opera, a local opera company. But providing Vancouver Opera performances to the rest of BC outside Metro Vancouver makes total sense to me." Survey Respondent

"What the performance industry needs is someone to take a leadership role in creating a digital platform where content can be aggregated and shared."

Dan Broome, Senior Business Representative, AFM Local 149, Toronto Musicians Union. [30]

The Canadian television landscape is equally bereft of performing arts content. With occasional exceptions, broadcasters have demonstrated a declining level of interest in music, dance, opera, theatre and arts and culture documentaries given the lower audience numbers this genre attracts. Since production funding including federal and provincial tax credits and the Canada Media Fund is tied to a broadcast license fee and a prime time broadcast commitment, producers are unable to create and distribute Canadian performing arts content. A growth area for the performing arts is the cinema screen, but without a restructured funding model, the cinemas will continue to be dominated by productions from the U.S. and the U.K.

The current collective agreements in the theatre industry make it difficult for theatre companies to repurpose their content without significant up-front costs. Unlike the U.K. and Australia which have one union covering both stage and screen performers, Canada has two unions – Equity for stage performers and ACTRA for screen performers – and both unions must be involved in any recorded productions.

Many Canadian theatres also have unionized stagehands who belong to IATSE, the International Association of Theatrical Stage Employees. When it comes to recording productions in a theatre there are rules governing the number of unionized crew, their rates and hours of work.

Musicians are covered by the American Federation of Musicians which also has rules regarding the repurposing of their performances.

Finally there are copyright issues. The Associated Designers of Canada members hold copyright over their set designs and costumes. Composers and writers may also require payment for re-use of their musical scores and scripts.

Other countries have managed to resolve these issues with agreements specific to repurposing stage productions. A senior union representative in the United States explains the motivation behind developing a business model that benefits everyone. "We had to take a good hard look so that we could be part of this global community with competition from companies like the National Theatre," says Lawrence Lorczak, Senior Business Representative with Actors' Equity in New York. "We wanted to raise the profile of American theatre, not just to put money in our members' pockets. We wanted to fill the void. When you turn on PBS and all you see are English productions, there's a perception that that is the preferred product." [34]

In the United Kingdom the theatre community takes the issue of repurposing stage productions seriously. Not only do they have live productions beamed to cinemas all over the world, there is now a digital platform that allows theatre fans to download full-length productions from the Internet on a pay-per-view or subscription basis.

Digital Theatre was established in 2009 and soon had worked its way through the rights issues and developed a revenue share model acceptable to all the parties in the country including British Equity, BECTU, MU (Musicians Union) and the PMA (Personal Managers Association), which represents entertainment industry talent agents.

With union agreements in hand Digital Theatre was able to establish partnerships with theatres such as the Royal Court, Gate Theatre, English Touring Theatre, Almeida, Bush Theatre, Regent's Park Open Air Theatre, Royal Shakespeare Company, Royal Exchange Theatre, Young Vic and others to film selected productions and offer them for sale on their third-party web site both during the run and once the production had closed. [35]

In Canada ACTRA National Executive Director Stephen Waddell is proud that they were the first performers union to have digital media in the collective bargaining agreements and certainly the first union and only performers union to rule on digital media issues.

Production purchase page on Digitaltheatre.com

Sue Milling, Director of IPA and Broadcast Production for ACTRA Toronto states, "I think people recognize that this is the future. We want to be able to open up to audiences particularly outside of downtown Toronto and be able to offer amazing theatre which patrons can access on their own time." [36]

Key players in the creative process of any theatre company are the musicians. The American Federation of Musicians is keenly aware and interested in the opportunities presented by digital media. The union is no stranger to repurposing of content as they have been partnering with CBC Radio for many years in broadcasts of symphony and opera productions.

Given their experience with both audio and video retransmissions, the AFM Local 149 Toronto Musicians Union is open to working collaboratively with performing arts groups to develop new revenue streams and online sharing of content. Dan Broome, the union's senior business representative suggested a model similar to one found in the music industry where artists establish online fan clubs. Fans who follow that artist pay for a ticket to attend the concert and then pay an additional premium membership fee to access exclusive content on the web site. "As a member of the fan club you're able to go online after the show and access it and watch it digitally any time you want years later so in essence you're seeing the memory live and then you're buying access to it at anytime you want." [37]

MARKETING AND PROMOTION

Digital media comes into play during pre-production when theatres are developing their marketing campaigns. The Stratford Shakespeare Festival, which is North America's largest repertory company, uses Google on-line marketing to engage with its audience. The festival's Administrative Director Anita Gaffney says the key is selecting the right words to buy and place web ads in the most advantageous places. "These ads follow you, the Internet user", says Gaffney. "If I'm on the Toronto Sun web page the Festival ad will follow me because I was on the Stratford Festival web site. So people will say to me, 'Why are you on the -I don't know, Sondheim Fan Club or some obscure page?' And the answer is, 'We didn't advertise there, we just followed you there.' So there are really effective on-line tools to grab the habits and behaviors of people who have been identified as 'predisposed theatre goers' and we can get the ads in front of them." [28]

The web may be ideal at reaching a targeted audience but the challenge is converting that user into a ticket buyer, says the Drayton Festival's Executive Director Steven Karcher. "Traditionally marketing has been about 'bums in seats' and whether digital media is going to deliver on that front – or whether it's an indirect means to an end which is about audience development and engagement. So you post a video people will watch but will they buy a ticket as a result of that?" He says "there isn't the data to show how these different tactics are actually translating into box office sales". [29]

Tracking audience behavior is a technique available only to those who can afford it. "We can measure right back to what that person did, what they clicked through, and did they buy a ticket? Did they buy a full price ticket? It's amazing. And that is really effective for us," says Stratford's Anita Gaffney. "On our web site, where we want to drive everybody, we've put a lot of energy towards people actually making a ticket purchase and that involves having an easy-to-use calendar function, the ability to book accommodation and plan your Stratford stay as

well as lots of great information on the shows." The festival's web site is refreshed with new video content two or three times per week featuring interviews with artists or revealing behind the scenes activity such as building a set piece or putting a component of the production together. The theatre has also invested in prosumer cameras and editing software and has several staff members who have basic video production skills.

SOCIAL MEDIA

Merriam-Webster describes social media as 'forms of electronic communication (as Web sites for social networking and microblogging) through which users create online communities to share information, ideas, personal messages, and other content (such as videos)'. [38]

Our study found that, to date, the widest use of digital media in the theatre community is in the area of marketing and promotion, particularly on the Internet and using theatre web sites, and social media applications like Facebook, Twitter and YouTube. The technology is ready to use and reaches a wide audience. Unlike traditional mass-market advertising social network marketing is highly targeted and reaches the people who wish to subscribe to e-mail newsletters, blogs or Facebook accounts.

The world of social media has drastically changed the way most theatre companies approach marketing. Theatre companies have been using the Internet to advertise their productions and to streamline ticket sales.

"Kids come out at the intermission during a first preview and immediately Tweet their impressions to their friends. So the first reviews are appearing – and potentially spreading around the world – even before the first performance is over"

Antoni Cimolino [39]

One company which is on the forefront of the social media movement is the Stratford Shakespeare Festival. With nearly 27,000 fans on Facebook, over 800 subscribers on YouTube, and over 5,000 followers on Twitter (as of September 2011), Stratford has developed a digital following that is unmatched by any theatre company in Ontario. In a keynote speech given by Antoni Cimolino to the College Association for Language and Literacy he discussed how the Festival uses social media for both marketing and audience engagement.

"We recently hired a social media coordinator at the Festival – someone young enough to be able to help us navigate these unfamiliar waters – and he reports that when he engages online with our Facebook fans and Twitter followers he finds them eager to take part in lengthy and often highly articulate exchanges. In many cases, though, if he contacts those same people by telephone, they immediately clam up. They seem uncomfortable communicating vocally, without the mediation of text. If this is true, if spoken literacy is in decline, then obviously this is something for those of us who work in the theatre to be concerned about."

Stratford's social media team is quite responsive. When study researcher Jessica Smith was at the Festival to see a performance of *The Tempest*, she tweeted that she was at the theatre waiting for the rest of her party to arrive. Within minutes @stratfest was following her and sent her a personal message thanking her for visiting and encouraging her to continue to tweet about Stratford.

It's that kind of personal connection with the audience that makes social media campaigns so effective.

"I and other members of the Festival staff use Twitter to update our followers on what's going on at the Festival. We post Festival videos on YouTube production clips, webcasts, interviews, ads and so on. We're exploring possible YouTube contests around specially created content or mash-ups. Thanks to Twitter what we used to call word of mouth is now global and practically instantaneous. This has huge implications for those of us who work in the performing arts," says Cimolino.

This new kind of 'word of mouth' has opened up a whole new market. Patrons can Tweet something to their followers and have it read by hundreds instead of verbally telling a select few friends. Unfortunately this development does have its disadvantages as well. Twitter is so instantaneous unofficial reviews of the performance arrive online a lot faster than the traditional reviews.

Smaller theatres like Blyth find it hard to commit resources to social media. "There is a huge amount of pressure being applied by our board to increase our web presence in an interactive way," says Artistic Director Eric Coates. "My board has been saying, 'why aren't we on Facebook?' And we are, but they expect us to be generating new content at the same rate as the (Stratford) Festival is and it's just not going to happen." [40]

Antoni Cimolino
Photo: David Hou

For playwright and director Marcia Kash the advantage of social media is the ability to promote her work. However, restrictions on the use of performance footage, even images of a production, prevent that material from being used or distributed once a production has closed without specific permission from the performers involved. Depending on the use contemplated additional fees may be levied.

"As a playwright it's a really, really important tool to have a scene to be viewed by another potential producer, to be able to say 'look at this' or 'highlights of...' and try to sell my play – because no one reads any more. They don't. They want a five-minute teaser," says Kash. [41]

In addition to running Blyth, Eric Coates is also President of PACT, the Professional Association of Canadian Theatre. "We really want to see the rules loosened up a lot so that we can promote ourselves," says Coates. "There is a working group of Equity and PACT talking about new media right now specific to the Canadian Theatre Agreement. That, I hope, will lead to some significant changes in that realm. And I can't see Equity (and I'm an Equity member) resist the idea that its own members should have the right to promote themselves."

Marcia Kash

The way we look at it and why we get frustrated is we want to use that stuff to enhance our marketing abilities, to put bums in seats, that will in turn pay salaries to artists. I think people need to look at it as an overall problem – it's not just about me (the artist)."

Alex Mustakis [29]

From Equity's perspective the challenge is determining where promotion ends and advertising begins. "It's a real gray area," says Arden Ryshpan, Executive Director of the Canadian Actors' Equity Association (Equity). "We understand the need to promote a production to put 'bums in seats'. We also support the notion of promoting a particular season or a run in which a performer is engaged. Now if I'm a performer and the season is over and I'm not working at the theatre anymore and you want to use my image to promote the theatre – 'no way'. If it was Tide and you were using my image to promote your product you would pay me. You're using my image to promote your theatre. Why don't you pay me?" [42]

Our study found widespread consensus that the CTA (Canadian Theatre Agreement) needs to be revised. However, as Steven Karcher of Drayton explains, it needs to be done so that there is a level playing field for all theatres. Currently larger theatre companies like Stratford have sidebar agreements with Equity that set the framework around repurposing, digital media and promotion which is something smaller theatre companies cannot afford to do. "The solution can't just be what's beneficial to the 'A' houses because the larger theatres with the larger budgets are going to be on the cusp as we enter this brave new world," says Karcher. His colleague at Drayton, Alex Mustakis says that the unions may be willing to come to the table to negotiate but at the end of the day they still want their members to be paid. [43]

While Equity represents performers when they are onstage and in promotional material, recorded material used for advertising or commercial purposes falls under the jurisdiction of ACTRA, The Alliance of Canadian Radio and Television Artists. "When they are shooting content to sell tickets for a production they can do a fair bit of that under their current agreement," says Ryshpan. "If they are putting up content to promote the theatre in general and it's going to be up there for quite some time then it should be treated as a commercial."

Arden Ryshpan

Alex Mustakis

Another challenge is the copyright issue. When content is posted on the Internet no one has control over where that content may eventually end up so careful consideration must be given to who is able to post content. The use of digital media in marketing represents an area that has yet to be resolved.

SOCIAL MEDIA IN PERFORMANCE

When evaluating the impact of social media one must take into consideration the definition of live performance.

On April 10, 2010, The Royal Shakespeare Company and Mudlark began the first ever Twitter performance of Shakespeare's *Romeo and Juliet* called *Such Tweet Sorrow*. The performance spanned a period of five weeks and included six actors. The actors were given a script detailing the character's backgrounds and their motivations - what they are feeling, who they are with, who they want to talk to". The task of writing the actual tweets was the responsibility of the actors.[44]

The audience for this production was anyone who chose to follow either one or all of the cast members on Twitter (or the live feed posted on their website). Although the production created a lot of hype, especially in the UK where a select few young people and bloggers were given free phones to follow along and tweet their reactions to the events as they unfolded, the general consensus was that *Such Tweet Sorrow* didn't live up to expectations.[45]

Stratford's Antoni Cimolino discussed his thoughts on the experimental production saying, "so even if the all-Twitter version of *Romeo and Juliet* turns out not to have been good art, it's still good *for* the art that such experiments take place. If they did not, we'd never discover anything new" [46]

Darren O'Donnell, Artistic Director of Mammalian Diving Reflex, described his work with social media and the additional artistic platform it provides. With nearly 3,000 friends on Facebook and over 800 followers on Twitter, O'Donnell says that anything he posts has more of an audience than any one of the runs of his shows. [47]

CONCLUSIONS AND RECOMMENDATIONS

It is clear from our research both in Canada and beyond that artists, directors, musicians and all creative personnel associated with live performance are trying to find the right balance as they embrace digital media and technology.

Beyond The Curtain canvassed stakeholders across all areas of the theatre and performing arts community. What we present as the recommended actions of our comprehensive study are ideas on how digital media can be adopted and advanced to the benefit of everyone involved in the live theatre industry.

1. Theatre producers and unions should accelerate the pace of discussions and negotiations to ensure that barriers to rapid adoption of content re-purposing and digital media applications are removed.

2. The theatre industry requires a forum for the exchange of ideas, skills and resources in the area of digital media technology.

3. Tax credits and production funding should be made available to content creators who repurpose theatrical content for the big and small screen even if a broadcaster is not involved.

4. Unions, associations, guilds and theatre groups should jointly develop integrated and collaborative workshops and master classes in the area of digital media technology.

5. Innovation funding should be made available to theatre companies who wish to explore and experiment with digital media and technology as it relates directly to theatre.

6. A collaborative pilot project should be undertaken for the capture and distribution of live performance for domestic, educational and international distribution.

Severn Thompson in *More Fine Girls*. Tarragon Theatre, 2011. Photo: Cylla von Tiedemann

In order to broaden the scope of our research and include input from a range of industry stakeholders, an on-line survey was conducted over a period of three weeks between July and August 2011. The survey was voluntary and was actively promoted by Actors' Equity, ACTRA, IATSE, PACT, AFM and TAPA. The survey received a total of 426 responses. The range and variety of the comments reflected a high level of engagement in the subject of digital media and theatre.

Here are the results of that survey presented in chart form:

What type of work do you do?
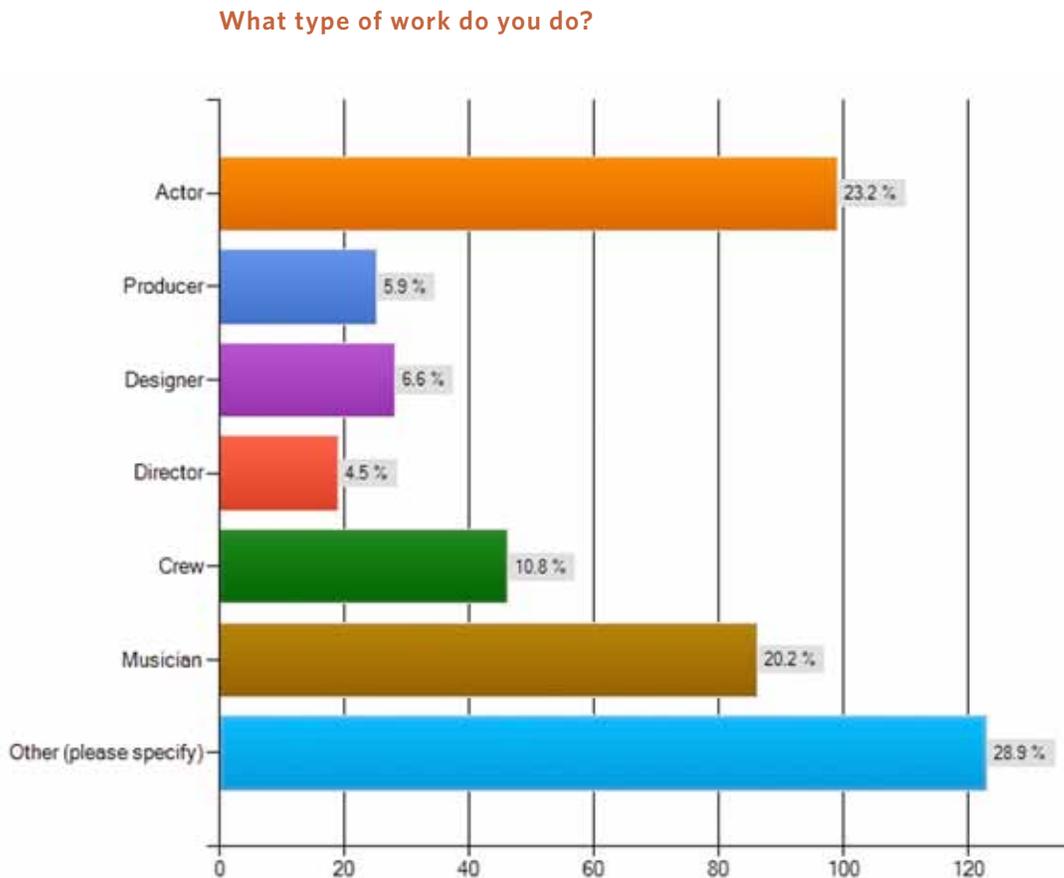
Are you a member or an apprentice member of a union, collective or association?

Category	Percentage
ACTRA	4.9 %
Canadian Actors' Equity Association	27.7 %
IATSE	8.5 %
CFM (former AFM)	14.6 %
Writers Guild	0.7 %
not applicable	22.3 %
Other (please specify)	21.4 %
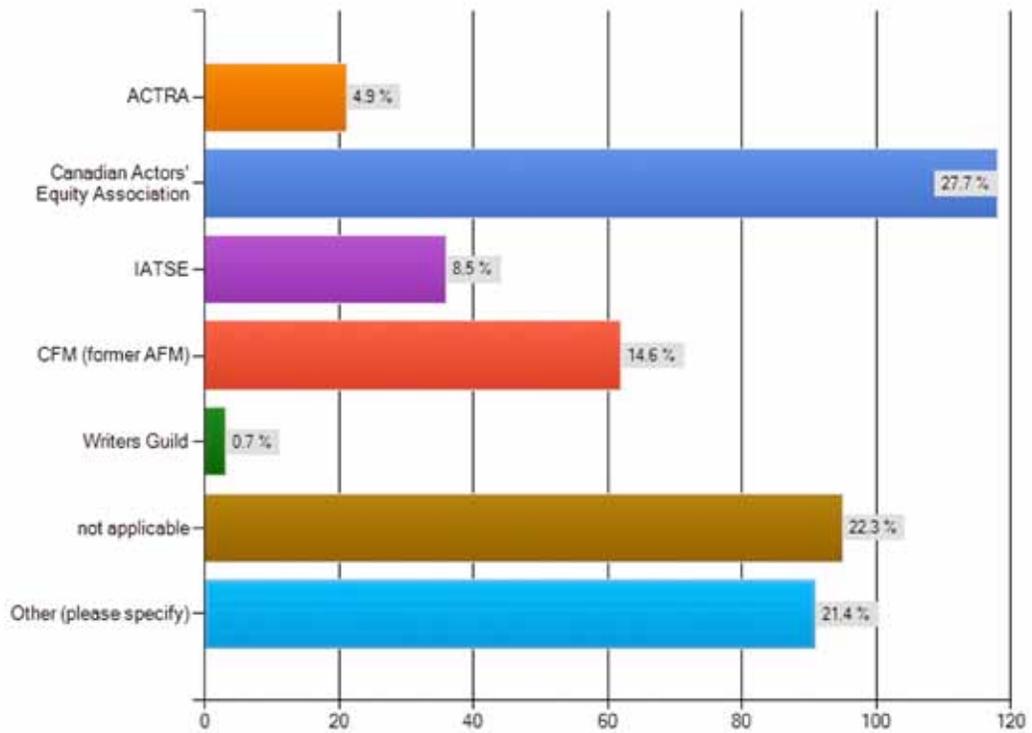
Have you personally been involved in a production that included a digital element in the performance?

Response	Count
Yes	~330
No	~95
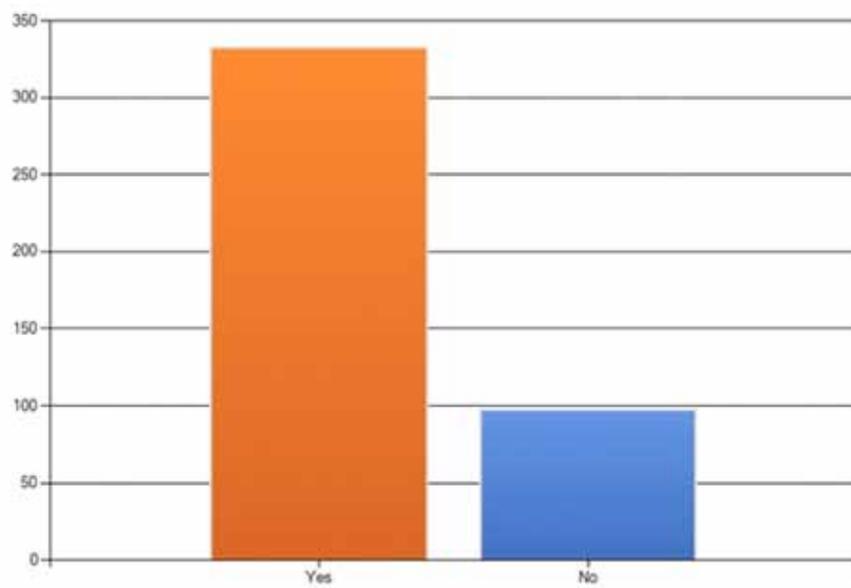
If yes, please select all that apply
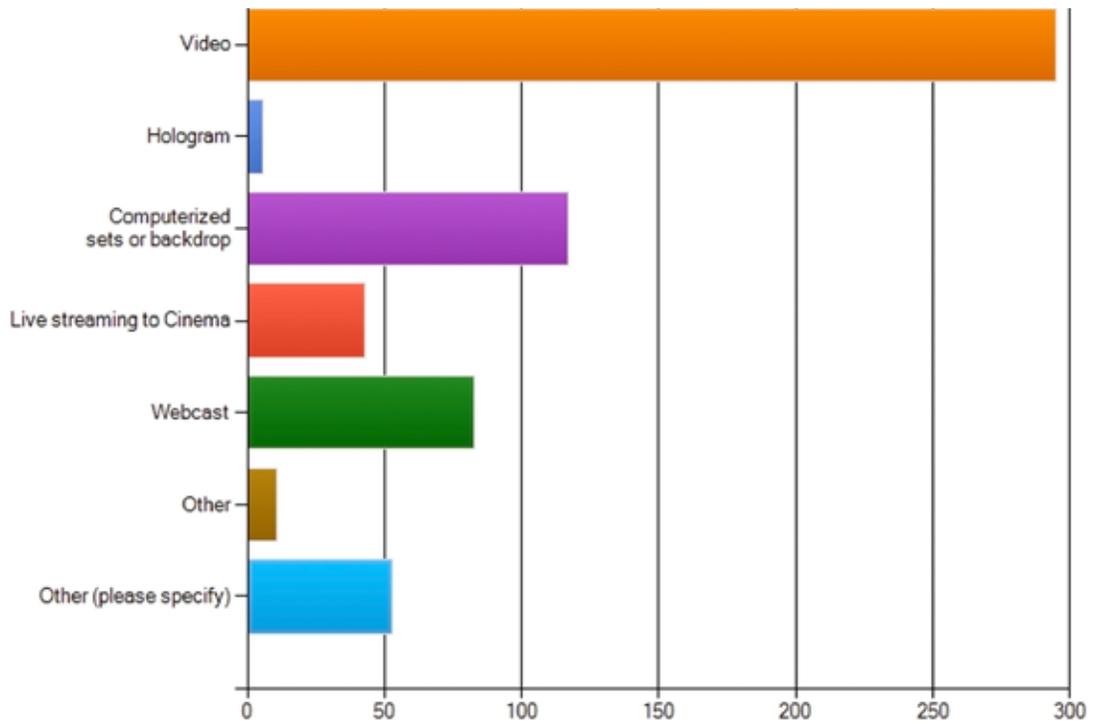
What do you believe is the most significant barrier to including the use of digital media in live performance?
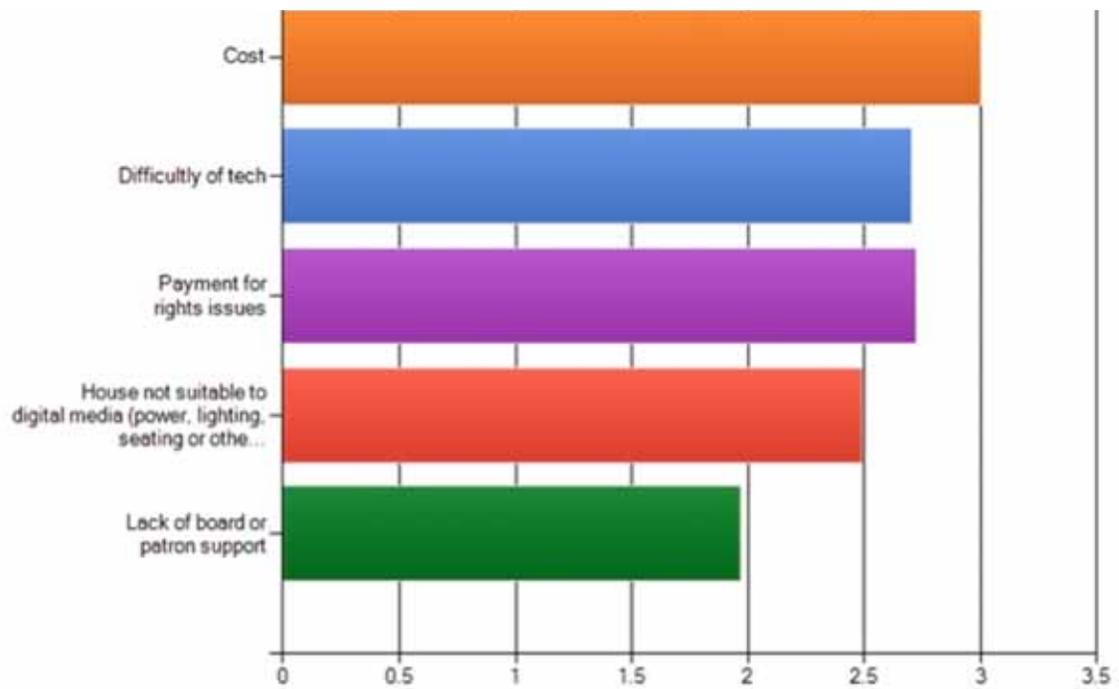
Do you believe live performance can be enhanced for an audience through selective use of digital media?
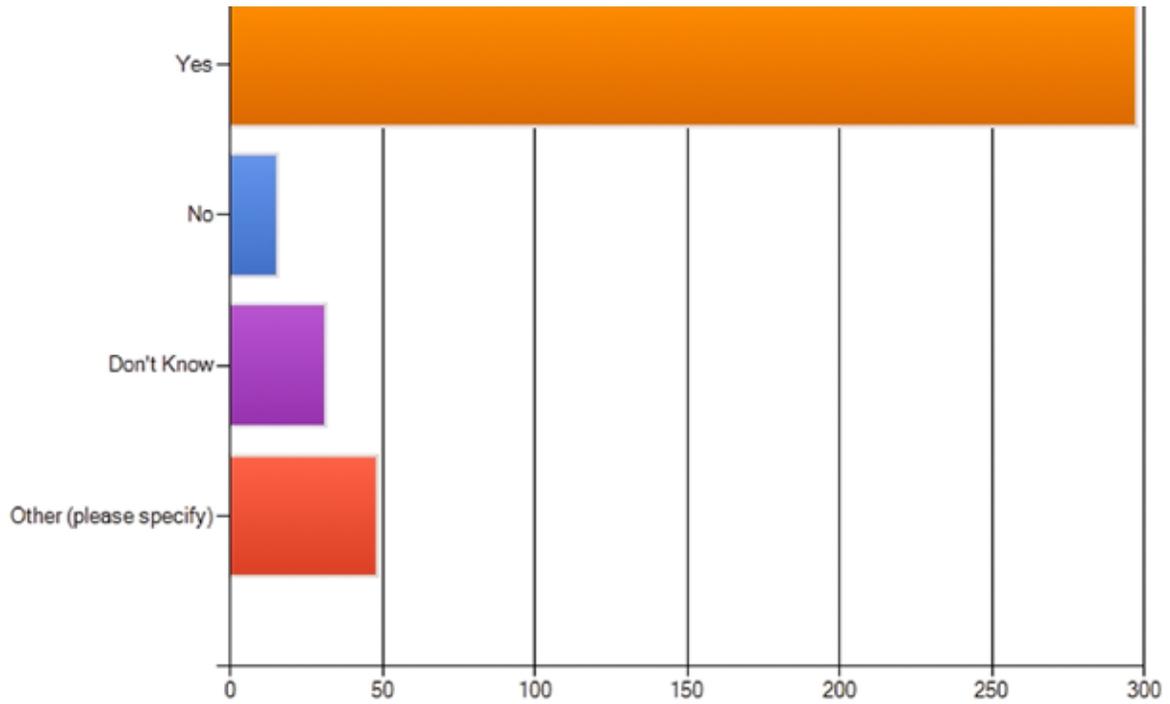
Do you believe people would be willing to pay to download or view a digital version of live performance captured for digital distribution, if it was well priced? eg. streaming the National Ballet?
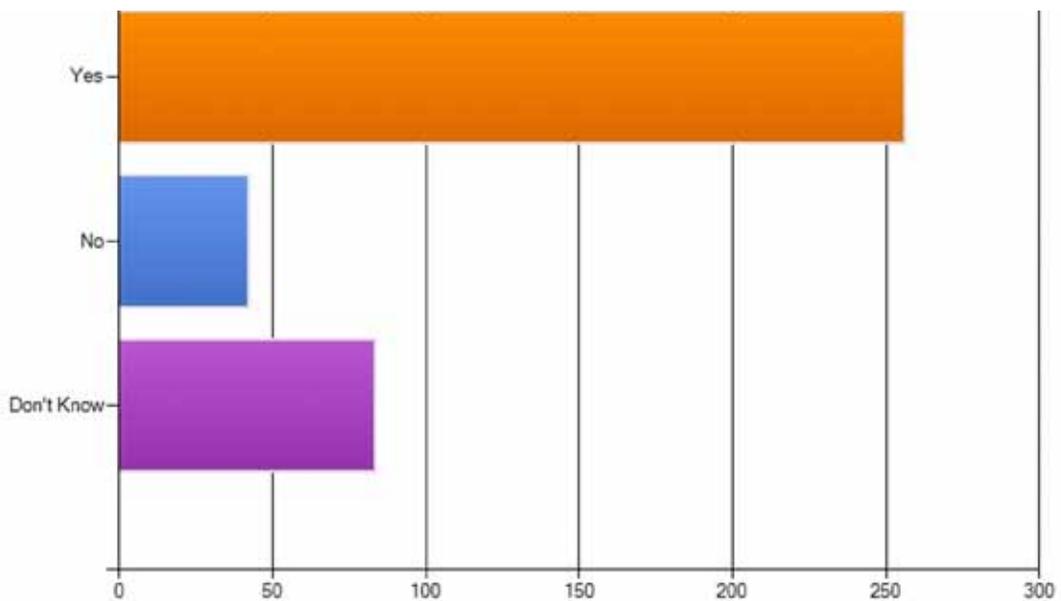
If all parties involved were to receive a financial benefit from the sale of digital versions, do you believe it is a good idea?
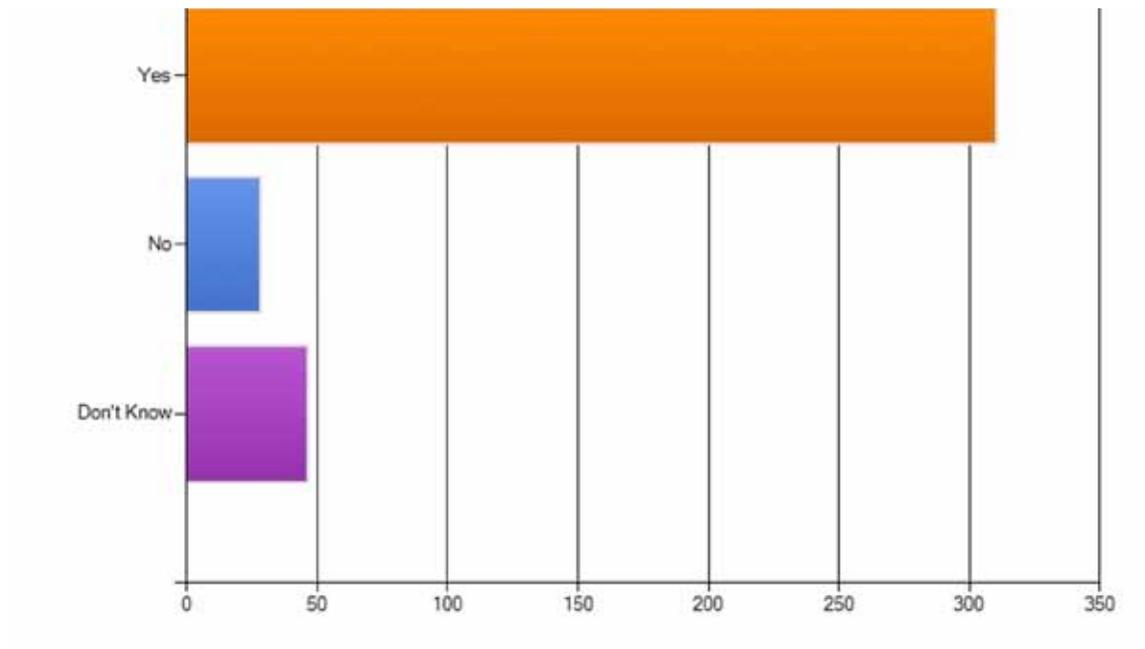
Do you believe there are advantages other than financial, to enabling digital distribution of recorded live performance?
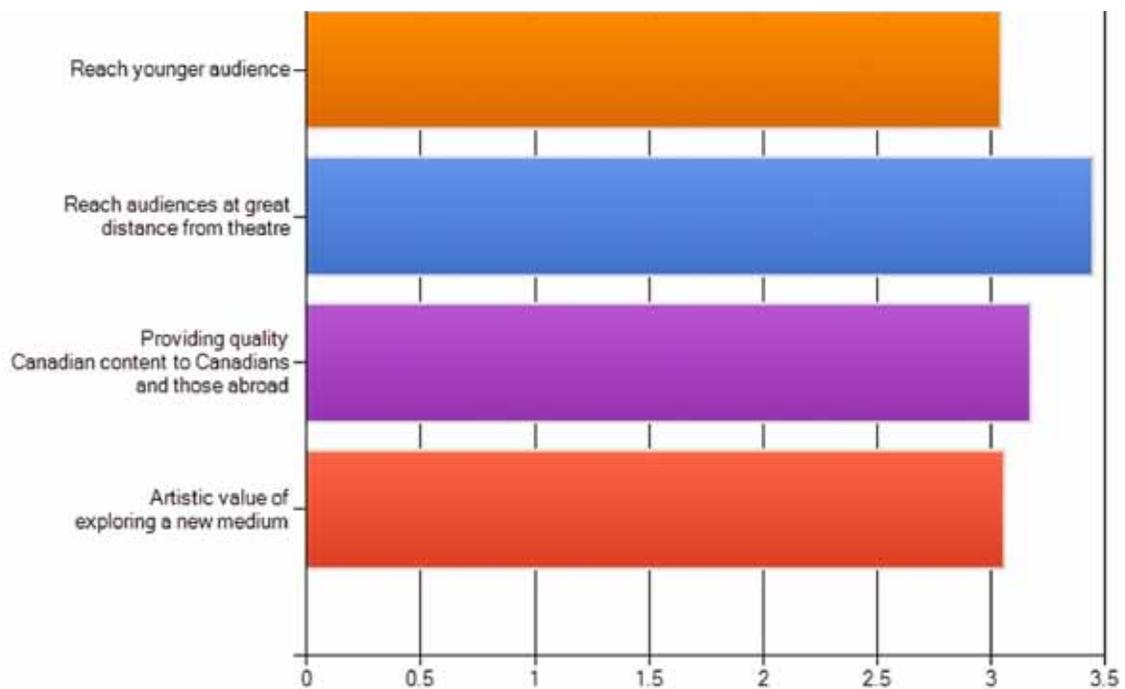
Do you have specific ideas about how to use digital media in live performance, or about making captured performance available on digital platforms?

· Simply put: find a way to do it. If you look at a pop act's website, there is all kinds of audio content - for free. If you look at a symphony's website, there is next to none. (exception: Tafelmusik) This is the only reason people would spend a significant amount of time on an arts organization's website. Find a way to get through the 'rights to distribute' reservation many different parties have.

· Look globally...Berlin Philharmonic is leading this trend.

· Supply audience with closer views and modifiable sound.

· To mobile phone (some people would love to see performance digitally right after they saw it live).

· Improvisational musical or other collaborations in real time but in different cities across the country, hopefully with audio and video available to the audience.

· Using digital copies of sheet music (on a laptop) would enhance my own work, instead of wrestling with sheet music. Some chamber groups already use this tool. I also like the idea of sharing live broadcasts with larger audiences. The Met's Live HD broadcasts, to give just one example, are a great advance in bringing great performances to a world audience.

· As lighting designer I think digital media, properly and tastefully done, can be an economical alternative to bulky sets, especially if a show is destined to tour.

· From a musician's perspective, using digital media to offer a preview of a performance has the potential to increase the marketing of events that are usually such a short run that the media review is published after the event has closed. Generating buzz through previews/ dress rehearsals/interviews with artists in a digital medium seems like a real opportunity.

· Audiences enjoy multi-media experiences. Use of digital info in a music performance can add significantly to a better experience and understanding of the music. i.e. images during a performance, speaker plus video before a performance. Multi sensory experiences engage a live audience. It is an experience the audience cannot get at home.

· When captured performance is made available for purchase on digital platforms, it's important to offer a brief trailer or excerpt for free, and to make it easy for fans to share this clip via social media (YouTube, Facebook, Twitter, Google+).

· Use on websites, simulcasts into classrooms, broadcast in cinemas, tablet applications.

· We would like to start streaming performances to at-home audiences.

· In live performance, the additional media must be an integral part of the story-telling, not just an obvious money-saving effort (e.g., set projections) or novelty (e.g., unrelated imagery). In captured performance for distribution, the process of retrieving, purchasing, and displaying the performance should be extremely easy for the consumer — no restrictive DRM, no barriers for micropayment, etc.

· I have very a conservative approach here: Video and still projection is a great tool to enhance set/lighting design. I've even seen it used as an additional costume design element. I worry, however, about overkill on all of these fronts.

· Close-ups on on-stage screens pull audiences into the emotions of the actor.

- I have many ideas/dreams of incorporating different forms of technological media into live performance. I have also been involved in and inspired by theatrical performances that imagined a concept and later developed the media to make it happen later. For example, having performers on stage interact with an actor in another country who was projected live onstage and able to interact with the physical cast.

- The only thing I can suggest about making decent live performance streams, is that the best quality equipment must be used, and ideally a "for recording" version of the piece would be staged in order to avoid the flatness of traditional live recordings. It needs to be thought of as a film in order to translate well, which rather defeats the purpose.

- Digital projections can provide great effects in creating the atmosphere on stage and can be successfully used to create sets and lighting.

- Digital media is wonderful for pulling focus to a specific close-up, scenic backdrop or abstract ideas. Its use is extremely unlimited. A wonderful enhancement for Dance.

- I see a very high value in making performances available where they would not otherwise be available. I do not highly support the current practise of regularly providing the Metropolitan Opera to Vancouver audiences which negatively impacts Vancouver Opera, a local opera company. But providing Vancouver Opera performances to the rest of BC outside Metro Vancouver makes total sense to me.

- If you make pre-show extras or behind the scenes video to show before and after the show, you should not charge your audience for that, as that is pure marketing. It should be free to attract a larger audience. To avoid additional rights, make your own digital media for use onstage. Something like the ballet may garner rental online, but most plays will not. Best to partner up with an advertising company that has a vested interest in theater patrons and offer the smaller shows for free. People will still pay to see the show in a theater, as that is part of the experience.

- Continuous webcast of rehearsals. Individual video blogs.

- Digital Media IN live performance can enrich the performance. There is strong potential for interesting multi-disciplinary interpretations using digital media onstage as a part of performance. Artistic development can grow and wow audiences. Digital Media OF live performance is no longer live performance, usually, and so this must be recognized as NOT an extension of live performance. It appears to be mainly commodification of a product for mass consumption-- not without merit perhaps, but not really furthering the art. It is actually important that art is scarce and not available everywhere.

- I am creating a few shows with audience participation in mind & this would be most beneficial to me - as the solo performer of my one woman shows! : D

- I am finding that like everything less is more in digital media. I have seen shows that have been enhanced by the media incorporated and I have seen shows fall apart because of the media incorporated. If it is used right, it is an awesome feature.

- My main thing is that it must tied to premise and story, if not it's like an excessive thing that takes the audience away from the story or premise.

- The sky is the limit in terms of its use in performance. In terms of distribution, using podcasting on iTunes or the web is a simple way to distribute with little cost. Or selling them on iTunes, Netflix etc.

- As a video artist, I use digital media mostly for narration, atmosphere creating, concept building, and creating visual representations that back up the sound pieces I work with. I tend to combine digital media with analogue manipulations, and play a lot with projections and what can be projected upon and why. I feel like there are a lot of opportunities for northerners to use digital media to beat the isolation, share and collaborate with artists around the world.

- Pay per view or view once only or subscribe to bulk view with copy protect.

- It must be incorporated, at least in principle, at the earliest stages of conception and design. Depending on the nature of the digital elements, some provision often needs to be made to incorporate it very early in the rehearsal process.

- Recording/streaming is especially useful for teaching - there should not be just a canon of exclusive performances that everybody has to watch (like the BBC or RSC, for instance). Having the reference performances is great, but seeing how others, especially more contemporary groups have performed a piece, just makes it more relevant and alive. In terms of scenography, digital is the future. It is cheaper, greener and allows for more flexibility and easier pre-production visualization. Digital is bringing the whole family of performance genres back closer to the fold: TV/film/theatre/dance/opera and even gaming and VR.

- This would become a great research and archive tool as well.

- I believe that digital media should never be used as a substitute for the inimitable connection that exists only in live performance between the performer and the audience. Digital media, as I have seen it used, is almost always used as compensation for lack of an exciting live performance. Too many small theatre companies without many resources are attempting to include digital media when they have yet to put together a play that can stand on it's own. Digital media has become a crutch in the world of live performance.

- 1 - Make a portion available for free, and then audience member can pay to continue watching. 2 - enhancements and bonuses can give the public insights into the theatre process, leading to increased appreciation of the medium.

- Video archives of productions will enable performers to better research shows they are auditioning or performing in. It will also protect and preserve creative ideas, as they will be archived.

- I am totally in favour of the use of recorded or digital devices and media in theatre if it enhances the show. Have seen some where the results are fabulous, and others where I felt all the effects diminished the experience. With respect to the retransmission of live theatre would love to see the development of it. COC, in partnership with CBC made some wonderful live recordings for broadcast in the late 80's, as did the Stratford Festival. Personally love the Met presentations, and wish Canadian companies could do something similar.

- I believe that digital media can be used as set or to enhance the viewers experience but that the actual experience of attending live theatre can not be captured and that is why audiences still attend live theatre.

- I'm not a huge fan. I like opera simulcasts but that's capturing a live performance. When it's done well (Robert Lepage) it's a wonderful accent. I don't like when digital media becomes a tactic to make plays more like movies. I like the ephemeral nature of theatre. If a new generation comes to expect everything 'visualized' they might lose the appreciation for the well-written word and the well-acted play.

- Captured performance: *instructional settings *international distribution of work by Canadian artists *archival purposes of performance in Canada, or by Canadians In Performance: *use of iconic footage in contemporary performance * investigation of concepts of sustainability - digital projection * multi-locational simultaneously constructed performance.

- Digital media must be an integral part of the design and creation process of a new piece, not an added-on layer. The technology must inherently shape the very structure of the work. Otherwise it's television on stage or moving wallpaper.

- Selling Canadian content to theatre companies across the country and internationally.

- Might best used as an "invisible" "indivisible" element of a live show… no different than light, sound etc. distribution issues are roughly analogous to other distribution methods.

- Providing captured performance on a digital platform should not be free. Appropriate fees should be negotiated between Equity and ACTRA.

- Using digital media in live performance can be effective if it is done carefully and thoughtfully. Robert LePage's work) or it can be distracting and detrimental where it is simply added on for effect. Live performances, especially theatre performances, don't capture very well digitally. Actors work differently on stage than on screen. We've seen some success with ballets and operas being broadcast to movie theatres, however, I don't think there would be much demand to see this kind of content on an iPhone or similar device.

- Performances should be recorded at quality levels and broadcast to students in remote areas with little financial penalty to the theatres producing them. Both the theatres and the artists need to work together to broaden our audience. With the rising costs of hotels and gas, touring is not always affordable. Also, many talented actors in Canada don't need to tour and choose not to. We should be encouraging youth to fall in love with theatre with some of the best talent out there at affordable rates to the theatres and government. Artists need to remember that audiences need to be developed - this partnership would ensure their livelihood for years to come. If union and association agreements ask for too much money for broadcasts like those stated above, they and artists of the future would ultimately suffer when our audience dies out.

- Live theatre is live theatre and does not always translate into video or film format. It becomes very expensive to make a good video or good quality film from a live show and there is often a lot lost when the energy between audience and performer is missing or not captured on camera.

- The only thought is how a LIVE performance is a different product than one designed for digital distribution. But a performance could be staged for screen (i.e.: The Met and Cinema Kabuki).

- You know, it seems like a bad idea to me. Live theatre is all about the experience of being there live and being a part of a performance that will never happen again. However, it seems to work well for the Met Opera Company, so maybe I'm narrow-minded. :)

- The key, in my opinion, is to combine the artistic disciplines of Theatre and Film. Trying to film a live production as if one were sitting in the audience simply doesn't play well in a digital platform. Using digital media in live performance has massive potential but always needs to stay contextual (e.g.: it would be difficult to use film in a period piece set in 1780). I also think social media can play a role in connecting an increasingly digital audience to a live entertainment format (e.g.: tweeting the show).

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