Canada Council for the Arts

The **Arts** in a
Digital World

Thematic Report

2. Overall Use of Technology

For more information please contact:

Canada Council   Conseil des arts
for the Arts   du Canada

Thematic Report

2. Overall Use of Technology

Prepared by Nordicity

1. Background

The Canada Council for the Arts' (Canada Council) has undertaken an initiative to understand how artists and arts organizations are adapting to creating, disseminating and making a living from the arts in a digital world. As part of that ongoing investigation, the Canada Council engaged Nordicity to conduct a survey of artists and arts organizations in Canada.

The data presented in this report is principally derived from the results of an online survey administered to Canadian artists and arts organization between May and July of 2016 – with many survey questions referring to respondents' activity in the last year. As they interact with digital technologies in different ways, separate questionnaires were administered to arts organizations and artists.

Overall, the survey gathered responses from 908 arts organizations and 2680 artists. This response represents about 25% of all arts organization and 23% of all (known) artists in Canada. While it is not possible to estimate a margin of error for arts organizations (as they do not adhere to a normal distribution), Nordicity estimates that the sample of artists is accurate to within 2% (19 times of 20).

The results of this research are divided into the following thematic reports:

- **Report 1**: introduces the research methodology and provides an overview of the respondents;

- **Report 2**: outlines respondents' overall use of technology;

- **Report 3**: details how digital tools are used at different stages of the creative process;

- **Report 4**: explores how respondents use data and perceive the return on investment of technology; and,

- **Report 5**: summarizes barriers to adoption and key observations.

Throughout the reports, data is presented with a number of top-line data filters, which are described below:

For arts organizations:	For artists:
▪ Respondents self-identified level of overall comfort with digital technologies as either "high comfort" and "low comfort;"	▪ Respondents self-identified level of overall comfort with digital technologies as either "high comfort" and "low comfort;"
▪ Size of organization is defined in terms of annual operating budget such that organizations with an annual operating budget of more than $250,000 are considered "large," and the remainder are considered "small;"	▪ Career stage categorizes artists practicing for fewer than ten years as "early career" and all others "late career;"
▪ Artistic discipline (where possible).	▪ Artistic discipline (where possible).

2. Overall Use of Technology

This thematic report provides a summary of how organizations and artists use digital technology in their work. Specifically, it examines the importance of digital technologies for different aspects of the creative process, the tools used, speed of adoption and overall satisfaction with investments of time and money in technology.

Survey results indicate that organizations attach the most importance to digital tools for marketing activities, followed by audience development. Artists also rated marketing first but rated research

second. **Websites and social media are the two most common digital tools used by both groups** however organizations are slightly more active online that individuals. While **98% of organizations use social media and 97% have websites**, these figures fall to 85% for social media and 89% for websites among artists.

Organizations and artists reported similar speeds of digital adoption with 39% of organizations and 38% of artists indicating they felt ahead of their peers. In contrast, while just 47% of organizations felt satisfied with their investments in digital technology, this number climbs to 59% among individual artists. Survey respondents with a lower level of digital comfort are less likely to use or perceive the advantages of technology whereas the size of an organization or career stage of an artist has less of an impact in these areas.

2.1   Importance

Survey respondents were asked to rate the importance of digital technologies to different aspects of their activities. **Arts organizations and individual artists both identified marketing, communications and promotion as the most important application of digital technology.** Whereas audience development was the second most important activity for arts organizations, research ranked second for artists. Moreover, although artists with different levels of comfort and at different stages in their careers attached similar levels of importance to the various functions, **organizations with a lower level of digital comfort were significantly less likely to perceive the importance of digital tools** for creation, dissemination and organizational management.
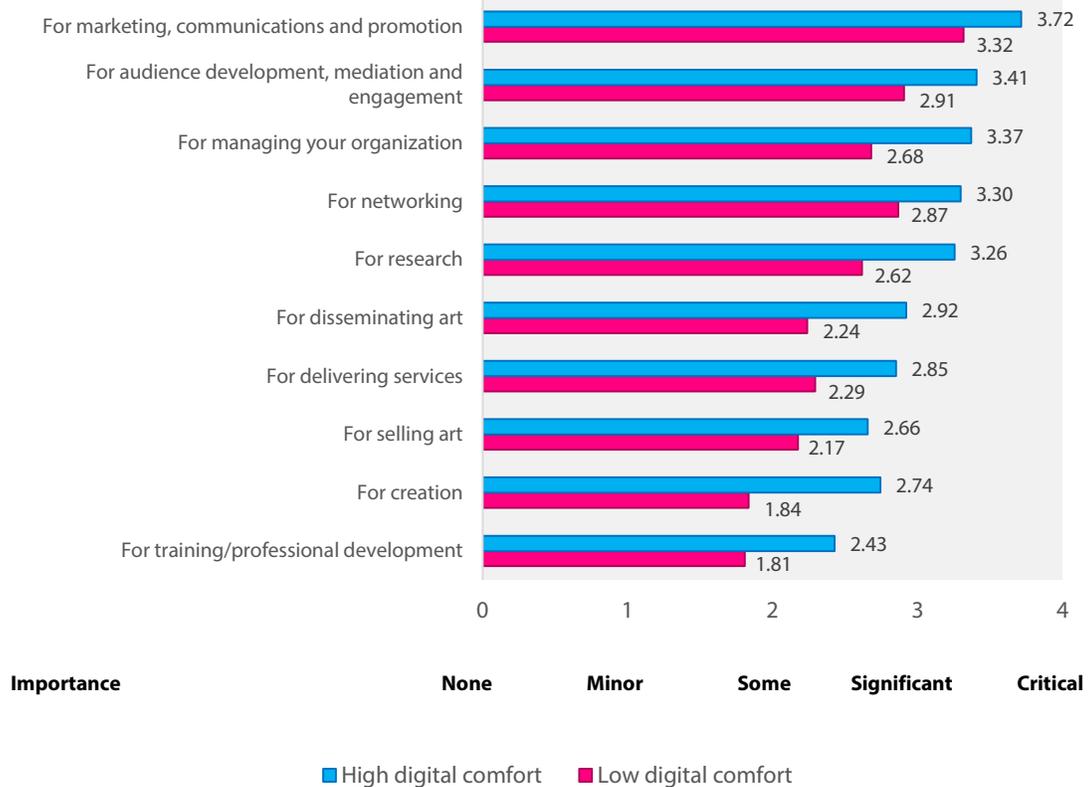
2.1.1   Arts organizations

Key Findings

- Marketing and audience development were ranked as the most important uses of digital tools for organizations with both a high and low level of digital comfort.

- Digitally uncomfortable organizations attached significantly less importance to digital tools for creation, dissemination, and managing the organization.

- No significant variation in importance by organization size.

The following chart shows the average importance attached by arts organizations to the use of digital tools for a variety of activities. As one might expect, digitally comfortable organizations assign higher average importance to digital tools than less comfortable ones. In both cases, marketing and audience development were the most popular applications of digital tools among organizations.

Figure 1: Importance of digital tools, by digital comfort (arts organizations)

	High digital comfort	Low digital comfort
For marketing, communications and promotion	3.72	3.32
For audience development, mediation and engagement	3.41	2.91
For managing your organization	3.37	2.68
For networking	3.30	2.87
For research	3.26	2.62
For disseminating art	2.92	2.24
For delivering services	2.85	2.29
For selling art	2.66	2.17
For creation	2.74	1.84
For training/professional development	2.43	1.81

| Importance | None | Minor | Some | Significant | Critical |

■ High digital comfort   ■ Low digital comfort

n=866
source: Nordicity Arts in a Digital World survey (2016)

As can be seen above, the largest gaps in importance by level of comfort were in use of tools for creation, for dissemination, and for managing the organization. In all three categories, digitally uncomfortable organizations attached significantly less importance to digital tools employed for these purposes. Despite the differences observed among organizations with different levels of digital comfort, there was little variation in the importance of digital technologies indicated by large and small organizations.
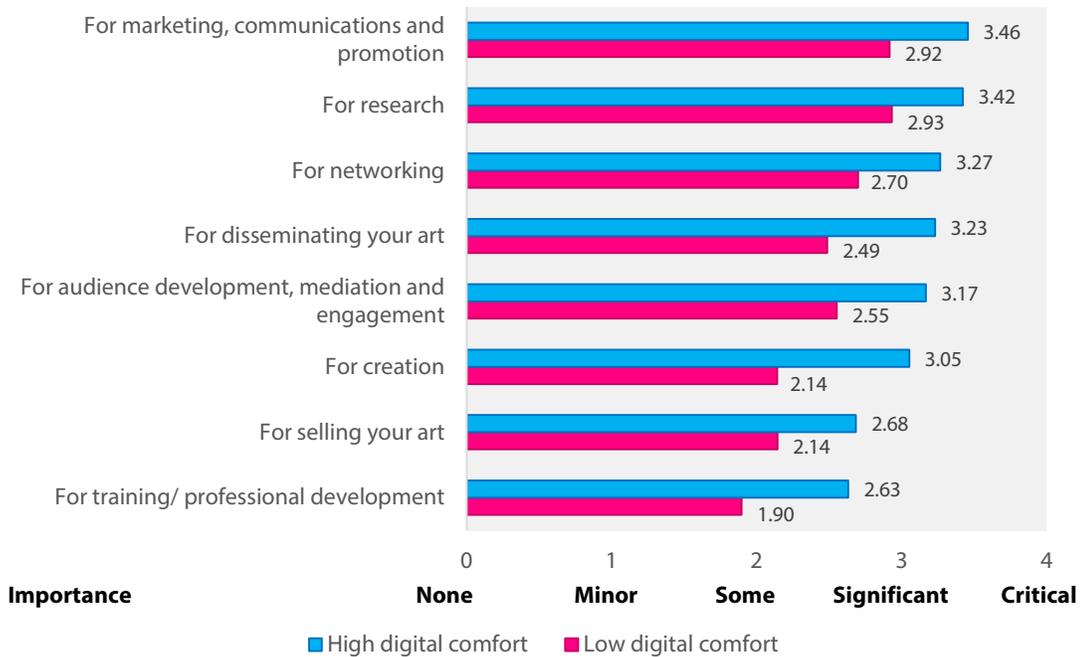
2.1.2   Artists

Key Findings

- Marketing and research were identified as the most important applications of digital technologies.

- The greatest difference among artists with high and low levels of digital comfort was in the importance of digital tools for creation.

- Artists with different levels of digital comfort and at different stages of their career gave a similar profile of ratings to each tool function.

As the figure below illustrates, artists regard digital tools as being most important for marketing, communications and promotion, followed closely by research and networking. The breakdown of the data by artists' level of digital comfort illustrates that artists with a low level of digital comfort gave a similar profile of ratings to each tool function, albeit their average responses were slightly lower overall.

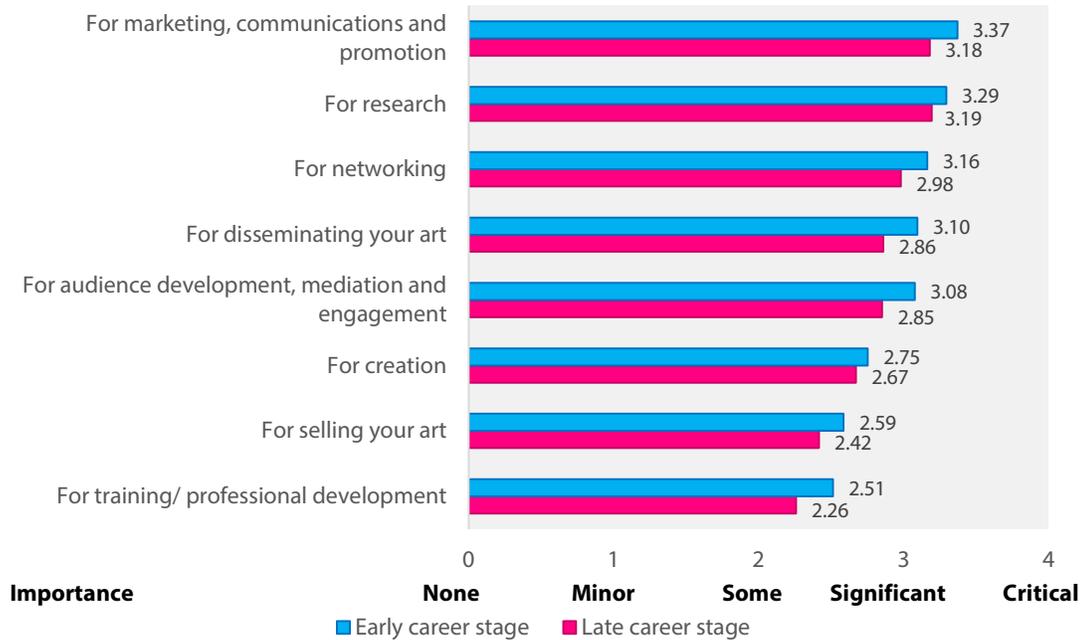*Figure 2: Importance of digital tools, by digital comfort (artists)*

n=2585
source: Nordicity Arts in a Digital World survey (2016)

The digital tool function which seems to have had the highest correlation to artists' digital comfort was "creation." In other words, the greatest difference observed between responses from artists with high and low levels of digital comfort was in their perception of the importance of digital tools for creation. This finding is intuitive, as the use of digital tools for creation (i.e. as an artistic tool in their practice) would logically either build up, or flow from, higher levels of digital comfort.

By contrast, however, the following figure shows that the importance of creation exhibited the least prominent relationship to the stage of artists' careers. Taken together, creation exhibited the highest sensitivity to digital comfort, but the lowest with respect to career stage. This finding suggests that while late career artists generally view digital tools as slightly less important overall, these artists are relatively less averse to the use of digital tools for creation.

Figure 3: Importance of digital tools, by career stage (artists)

Importance: None(0) Minor(1) Some(2) Significant(3) Critical(4)

- Early career stage
- Late career stage

	Early career stage	Late career stage
For marketing, communications and promotion	3.37	3.18
For research	3.29	3.19
For networking	3.16	2.98
For disseminating your art	3.10	2.86
For audience development, mediation and engagement	3.08	2.85
For creation	2.75	2.67
For selling your art	2.59	2.42
For training/ professional development	2.51	2.26

n=2585
source: Nordicity Arts in a Digital World survey (2016)

As with level of digital comfort, this table suggests a similar profile of tool ratings for artists at different stages of their careers.

2.2 Tools Used

Survey respondents were asked to indicate which communications tools they use, either in their individual artistic practices or as organizations. **Websites and social media are the most common form of digital communication tools among organizations and artists.** Overall, 97% of organizations have websites and 98% are active on social media, and these figures are 89% and 85% for artists. In both cases, **level of digital comfort has the greatest impact on the use of blogs and apps**. For instance, 45% of digitally comfortable artists and 37% of digitally comfortable organizations indicated they used apps yet only 26% and 16% of their less comfortable peers did so.
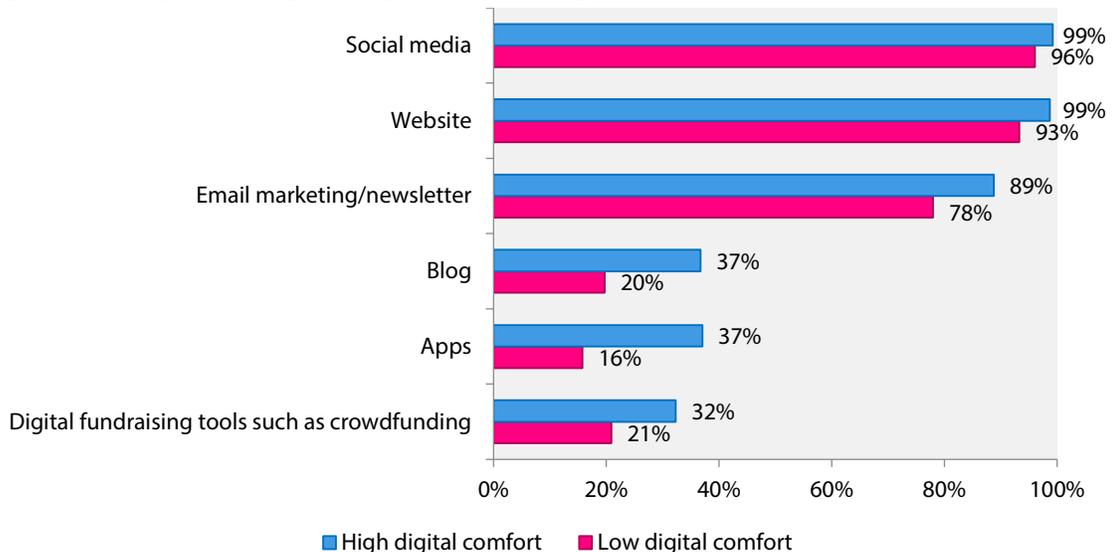
2.2.1 Arts organizations

Key Findings

- Social media and websites are the most common digital tools for communications with 98% of all organizations using social media and 97% maintaining websites.

- Digital comfort has the greatest impact on blogs and apps: 37% of digitally comfortable organizations use these tools, while only 20% of less comfortable organizations use blogs and 16% used apps.

- Small organizations are slightly less likely to use digital technology than large ones, although organization size does not have as great an impact on the use of blogs or apps as level of digital comfort.

As can be seen in the chart below, the use of the top two digital technologies (social media and websites) do not differ greatly between organizations with different levels of digital comfort. Comfortable organizations were marginally more likely to use email marketing or newsletters.

Figure 4: Use of digital technologies, by digital comfort (arts organizations)
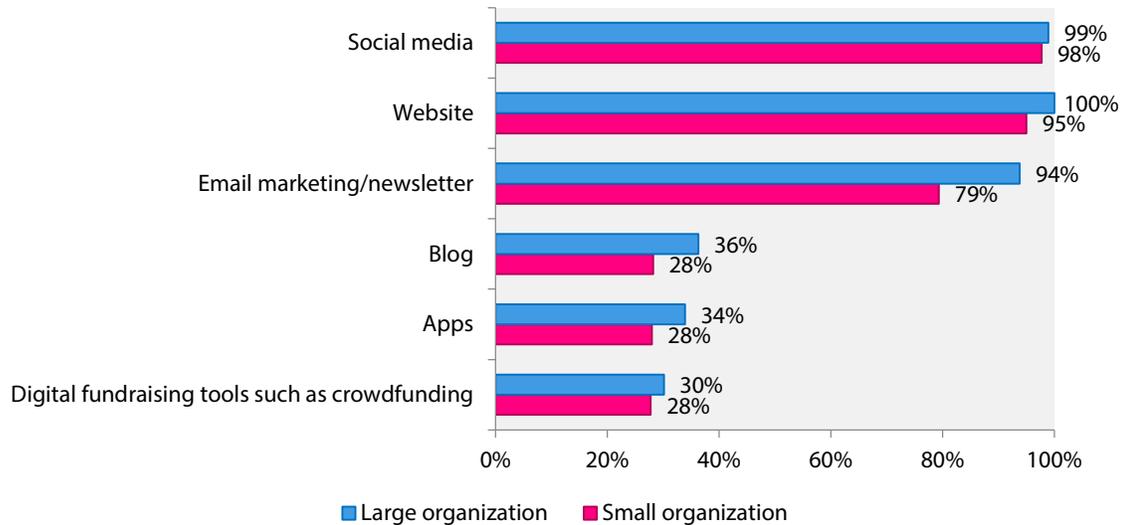

n=869
source: Nordicity Arts in a Digital World survey (2016)

The largest discrepancy between comfortable and uncomfortable organizations was in the use of blogs and apps, which comfortable organizations were almost twice as likely to use as their less comfortable counterparts.

The chart below shows that small organizations are, across the board, slightly less likely to make use of digital technologies than large ones.

Figure 5: Use of digital technologies, by organization size (arts organizations)

n=869
source: Nordicity Arts in a Digital World survey (2016)

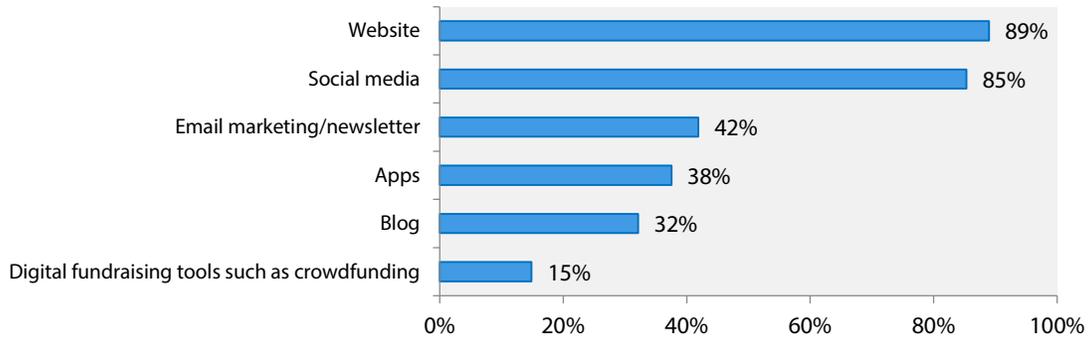Organization size does not have as great an impact on the use of blogs or apps as level of digital comfort.

2.2.2   Artists

Key Findings

- 89% of artists use websites and 85% have social media accounts.

- Digital comfort has the greatest impact on the use of apps and blogs: 45% of digitally comfortable artists use apps compared to 26% of less digitally comfortable artists. Similarly, while 40% of digitally comfortable artists use blogs, only 20% of less digitally comfortable artists do so.

- Artists at a later stage in their career are more likely to use email marketing and apps than artists at an earlier stage. In contrast, social media and blogs are more common among artists at an earlier stage in their career.

As the figure below illustrates, nearly nine out of ten artists use websites and social media as communications tools, whereas a much smaller proportion use email, apps or a blog. Crowdfunding was the least used digital tool.

Figure 6: Use of communications tools (artists)

Website — 89%
Social media — 85%
Email marketing/newsletter — 42%
Apps — 38%
Blog — 32%
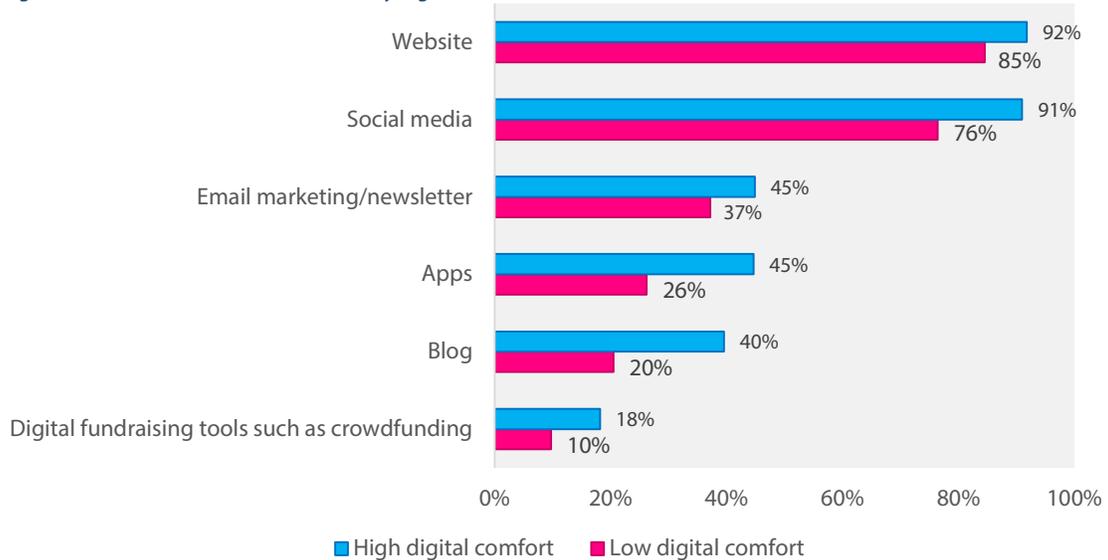Digital fundraising tools such as crowdfunding — 15%

n=2,473
source: Nordicity Arts in a Digital World survey (2016)

The following figure breaks out artists' use of digital technologies by level of digital comfort. This chart shows that while websites, social media and email marketing are used slightly less among artists with low digital comfort, the most marked difference between these groups is in the use of apps, blogs and crowdfunding. Indeed, artists with a low level of digital comfort are only about half as likely to use apps, blogs and crowdfunding as more digitally comfortable artists.

Figure 7: Use of communications tools, by digital comfort (artists)

Website — 92% / 85%
Social media — 91% / 76%
Email marketing/newsletter — 45% / 37%
Apps — 45% / 26%
Blog — 40% / 20%
Digital fundraising tools such as crowdfunding — 18% / 10%

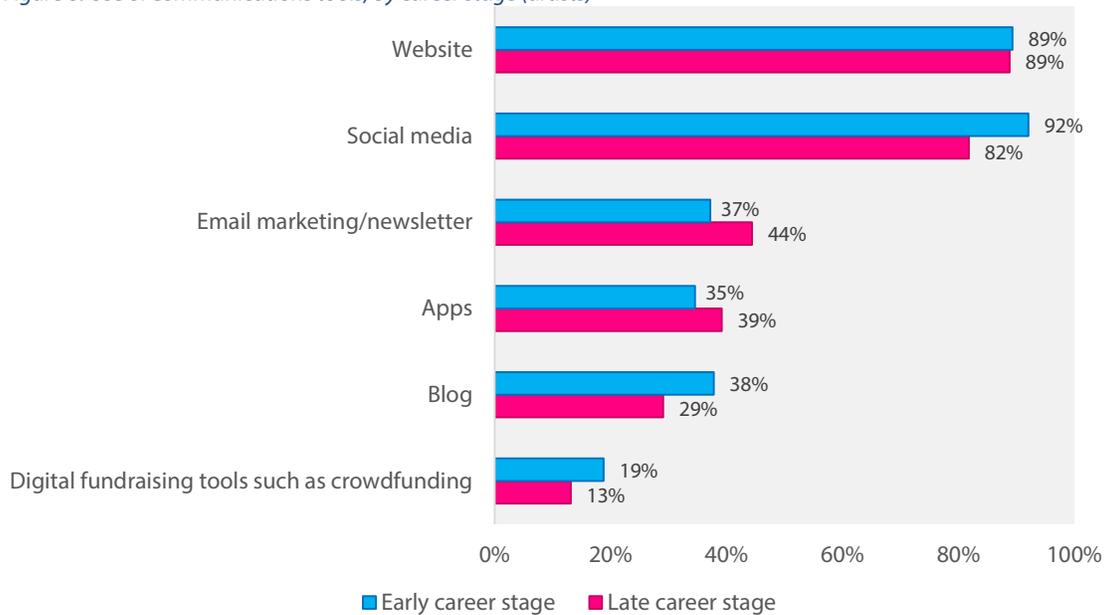■ High digital comfort ■ Low digital comfort

n=2,473
source: Nordicity Arts in a Digital World survey (2016)

A slightly different picture emerges when comparing early and late career stage artists, as illustrated in the figure below (next page).

Figure 8: Use of communications tools, by career stage (artists)

Tool	Early career stage	Late career stage
Website	89%	89%
Social media	92%	82%
Email marketing/newsletter	37%	44%
Apps	35%	39%
Blog	38%	29%
Digital fundraising tools such as crowdfunding	19%	13%

■ Early career stage   ■ Late career stage

n=2,473
source: Nordicity Arts in a Digital World survey (2016)

Websites exhibited broad usage among all artists. While late career stage artists are more likely to use email marketing and apps, their early stage counterparts are more likely to use social media, blogs and crowdfunding.

2.3   Speed of Adoption

Survey respondents were asked to assess how quickly they adopt new digital technologies in relation to their peers. **The largest proportion of respondents indicated they were average, with 50% of organizations and 44% of artists selecting the "neutral" option.** In both cases, more respondents see themselves as ahead of the curve in terms of speed of adoption rather than behind it. The majority of fast adopters are digitally comfortable, while the reverse is also true in the case of slow adopters.
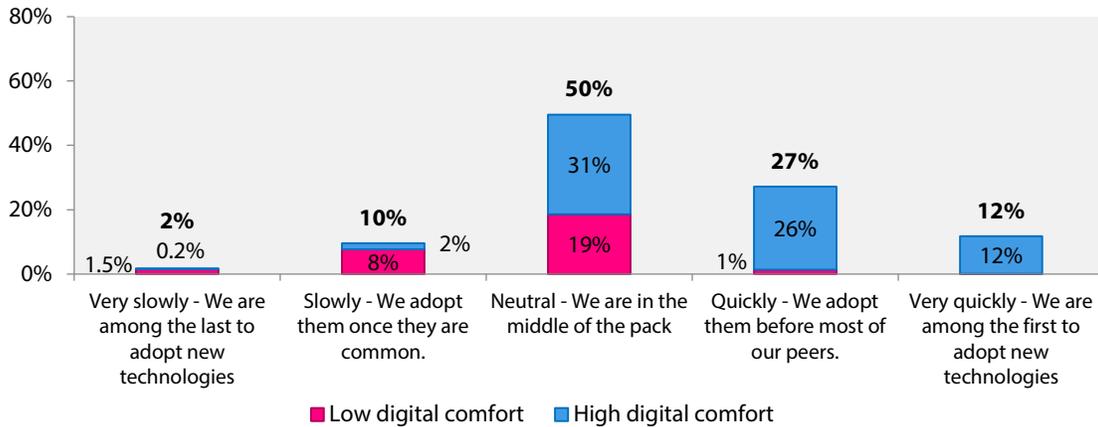
2.3.1   Arts organizations

Key Findings

- 50% of organizations indicated that their speed of adoption is average.

- Of the 39% of respondents who see themselves as faster than average, 38% are digitally comfortable artists.

- Of the 12% of respondents who see themselves as slower than average, 9.5% are less digitally comfortable.

The chart that follows shows the distribution of arts organizations' speed of adoption of new digital technologies. Half of the sample indicated they are on or near the average speed of adoption.
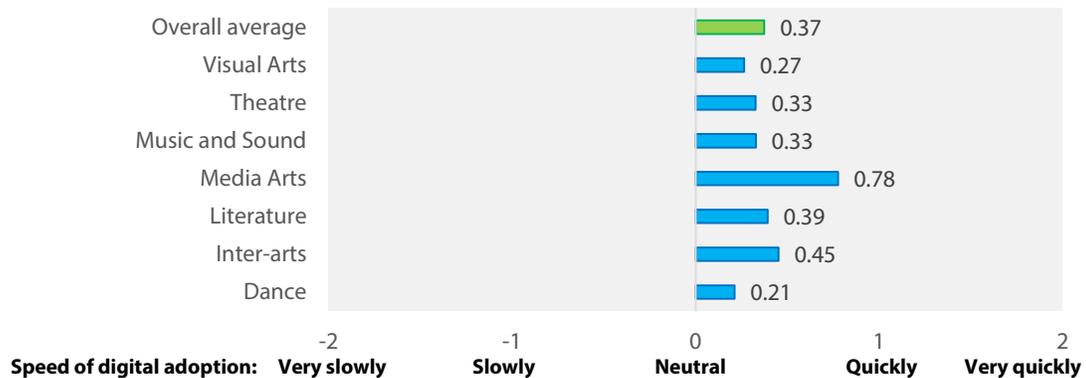
Figure 9: Speed of digital adoption, by digital comfort (arts organizations)

n=868
source: Nordicity Arts in a Digital World survey (2016)

The chart below presents the average speed of digital adoption, broken out by discipline.[1] As one might expect, media arts organizations tended to adopt digital technologies more quickly than the average.

Figure 10: Average speed of digital adoption score by discipline (arts organizations)

n=868
source: Nordicity Arts in a Digital World survey (2016)

As can be seen above, 39% of respondent organizations indicated they are ahead of the curve in terms of adoption of digital technologies. Only 12% of respondents thought they are slow to adopt new technologies. The vast majority of respondent organizations who consider themselves fast adopters also indicate a high level of digital comfort while the reverse is true for organizations with a low level of digital comfort.

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[1] The sample size for digital media, circus and deaf and disability arts was too small to present in this way.
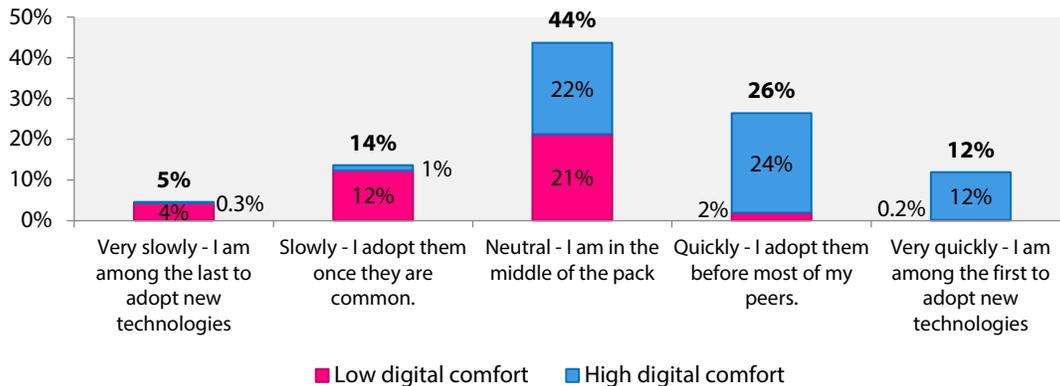
2.3.2 Artists

Key Findings

- 44% of artists see themselves as neutral in terms of speed of adoption.
- Of the 38% of respondents who see themselves as faster than average, 36% are digitally comfortable artists.
- Of the 17% of respondents who see themselves as slower than average, 16% are less digitally comfortable.

As illustrated in the following figure, the self-reported adoption rates of artists in the survey sample generally tend to favour "neutral," with a slight preference for faster adoption.

Figure 11: Speed of digital adoption, by digital comfort (artists)
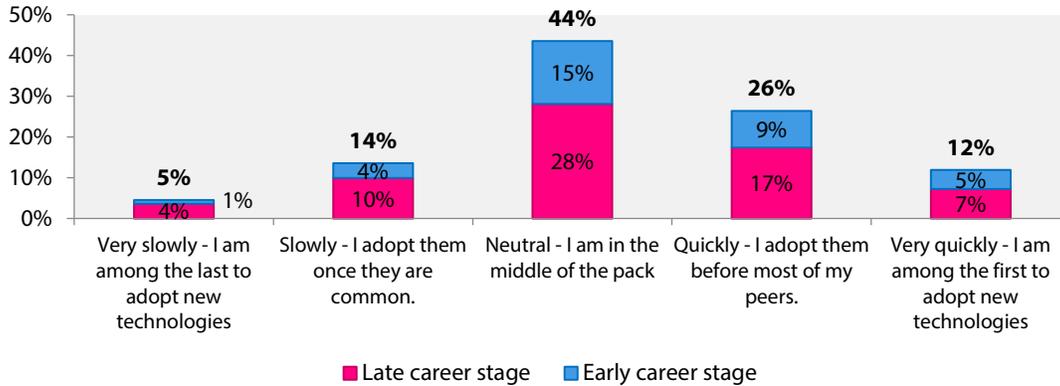

n=2,569
source: Nordicity Arts in a Digital World survey (2016)

This result makes sense on an intuitive level, as the 38% of respondents that adopt either quickly or very quickly appear to do so before most (62%) of their peers (which is consistent with the wording of the question), while those who adopt slowly only do so after 81% of their peers have done so. As such, artists' self-perception of adoption rates is internally consistent within the sample.

In addition to the overall distribution of responses, the figure above also shows how artists of high and low digital comfort responded to this question. As one might expect, artists with low levels of digital comfort are predisposed to a slower speed of technological adoption than their more digitally comfortable peers.

The figure below breaks out the responses by career stage, illustrating that artists in early and late stages of their careers are similarly distributed on the adoption curve.

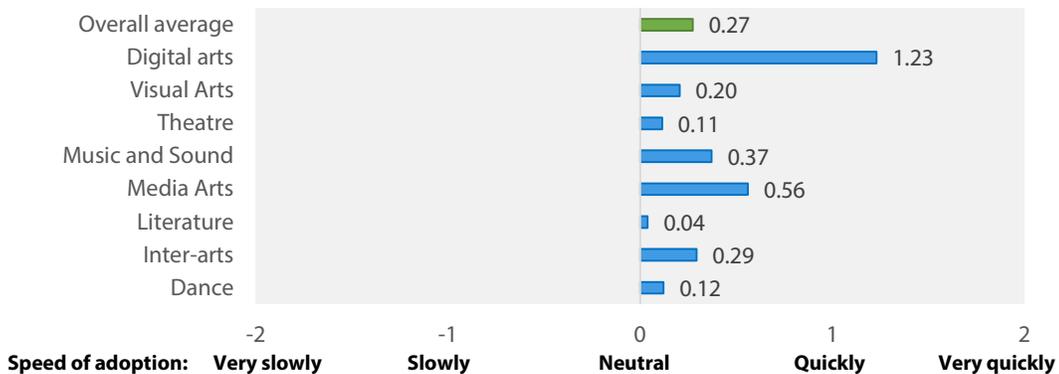*Figure 12: Speed of digital adoption, by career stage (artists)*

n=2,541
source: Nordicity Arts in a Digital World survey (2016)

The difference between these charts is significant, because a great deal of the subsequent analysis will show that the responses of late career stage artists and artists with low digital comfort have very similar characteristics. At this point, it is important to highlight that these are, in fact, distinct groups of respondents.

The following chart breaks these responses out by discipline, showing that respondents from all disciplines except digital arts tend to have similar self-perceived adoption rates.

Figure 13: Average speed of digital adoption score, by discipline (artists)

n=2,548
source: Nordicity Arts in a Digital World survey (2016)

As one might expect, digital artists reported significantly higher adoption rates than practitioners of any other discipline. Media arts, music and sound, and inter-arts practitioners also showed a slight tendency toward faster adoption rates. Generally speaking, however, all disciplines are well represented across this metric.

2.4 Overall Satisfaction

Survey respondents were asked to describe their level of satisfaction with investments in digital technology. Taken together, organizations are slightly more satisfied than artists. **Whereas 47% of**

organizations indicated they were satisfied or very satisfied, only 45% of artists did so.
Moreover, levels of dissatisfaction were slightly higher among artists (19%) than organizations (15%).

In both cases, respondents with a greater degree of digital comfort reported higher satisfaction. On a scale of -2 to 2, digitally comfortable organizations had an average score of 0.6 while their less comfortable peers had an average score of -0.11. Similarly, 50% of less comfortable artists felt neutral about their investments compared to only 22% of more comfortable individuals. In contrast, organization size and stage of career had a less significant impact on satisfaction.
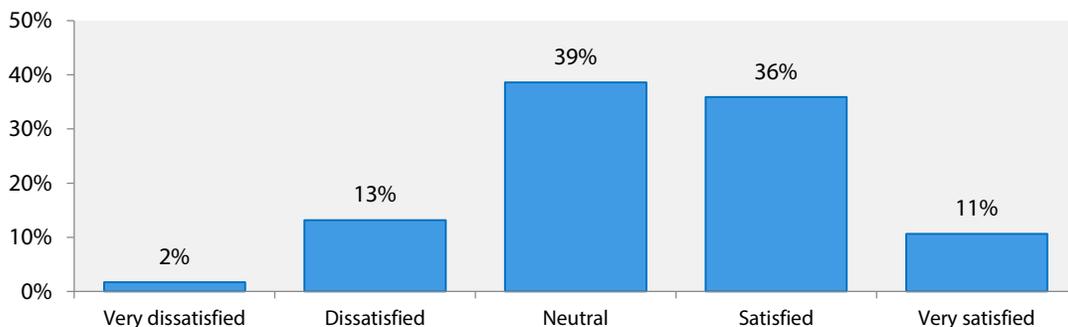
2.4.1 Arts organizations

Key Findings

- 47% of organizations are either satisfied or very satisfied with their investments in digital technology.

- 15% of organizations are dissatisfied or very dissatisfied with their allocation of time and resources.

- Digitally comfortable organizations had the highest level of satisfaction on average.

As the following chart illustrates, nearly half of arts organizations are either satisfied (36%) or very satisfied (11%) with their investments of time and resources into digital creation and production tools. Only 15% reported that they were, overall, dissatisfied with such investments.
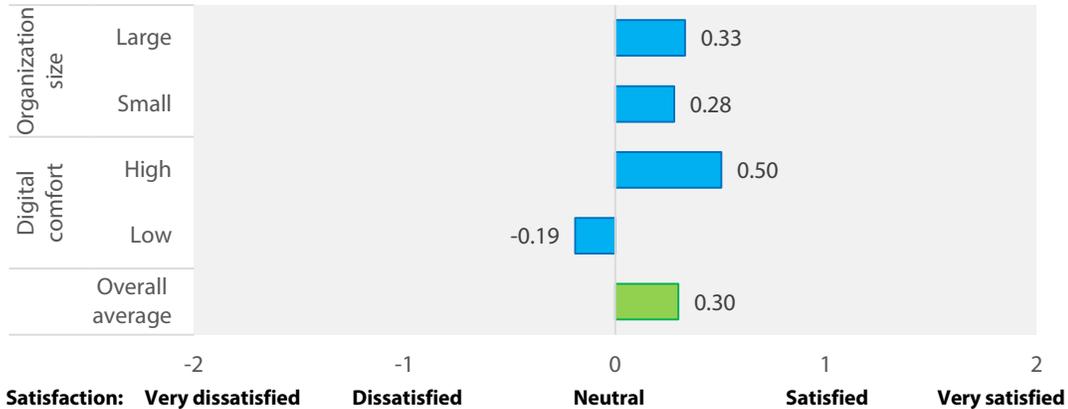
Figure 14: Satisfaction with creation and production tools (arts organizations)

n=705
source: Nordicity Arts in a Digital World survey (2016)

The chart below shows the average satisfaction score along two dimensions: digital comfort and organization size. The score may range from -2 (very dissatisfied) to 2 (very satisfied) with 0 indicating a neutral response. Digitally comfortable organizations had the highest average score (0.50), while less comfortable ones had the lowest satisfaction score (-0.19), indicating that they were on average slightly dissatisfied with their investments into digital technologies overall.

Figure 15: Average satisfaction with digital technologies overall, by organization size and digital comfort (arts organizations)

Organization size	Large	0.33
	Small	0.28
Digital comfort	High	0.50
	Low	-0.19
	Overall average	0.30

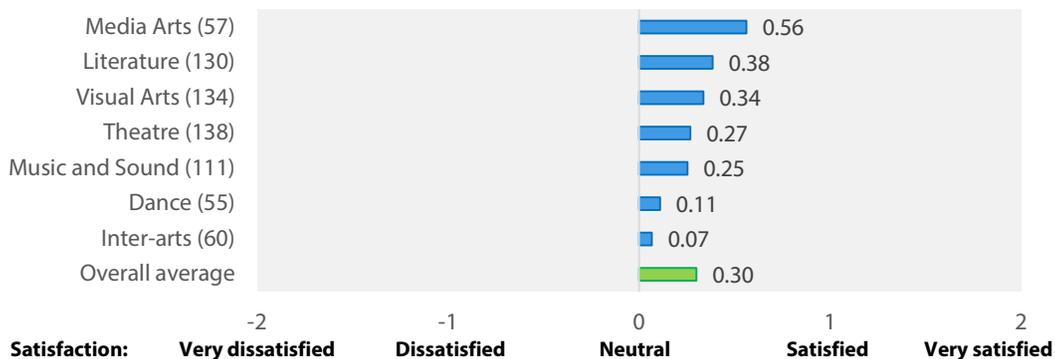Satisfaction: Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very satisfied

n=722
source: Nordicity Arts in a Digital World survey (2016)

While greater satisfaction is not surprising among organizations with higher digital comfort, several factors could contribute to the discrepancy between small and large organizations. For instance, respondents from small organizations may feel that they make good used of digital technologies given limited resources.

The following figure shows that media arts, literature and visual arts organizations reported the highest level of satisfaction with respect to their investment of time and resources into digital technologies. Inter-arts and dance organizations, on the other hand, averaged a more neutral response, while still modestly positive.

Figure 16: Average satisfaction with digital technologies overall, by discipline (arts organizations)

Discipline	Value
Media Arts (57)	0.56
Literature (130)	0.38
Visual Arts (134)	0.34
Theatre (138)	0.27
Music and Sound (111)	0.25
Dance (55)	0.11
Inter-arts (60)	0.07
Overall average	0.30

Satisfaction: Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very satisfied

n=685
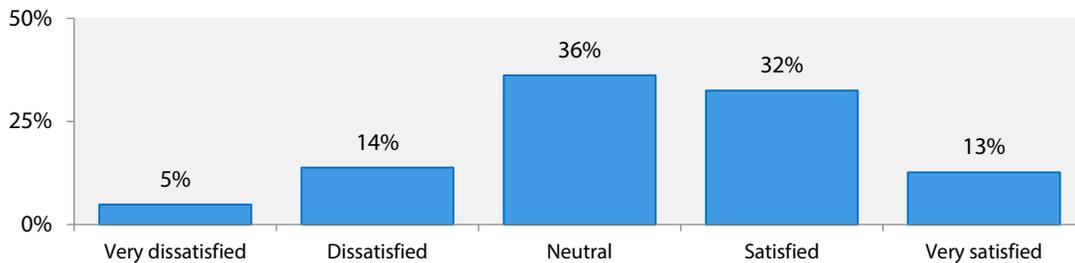source: Nordicity Arts in a Digital World survey (2016)

2.4.2   Artists

Key Findings

- 45% of artists are either satisfied or very satisfied with their investments in digital technology.

- Only 19% of artists are dissatisfied or very dissatisfied with their allocation of time and resources.

- Level of digital comfort has a greater impact on satisfaction than career stage: 25% of digitally comfortable artists are very satisfied while only 8% of less digitally comfortable artists report similar results.

As illustrated in the following figure, nearly half of artists (45%) are either satisfied (32%) or very satisfied (13%) with their investment of time and resources into digital creation and production tools, while fewer than one in five (19%) reported some level of dissatisfaction.

Figure 17: Satisfaction with investment in digital technologies overall (artists)
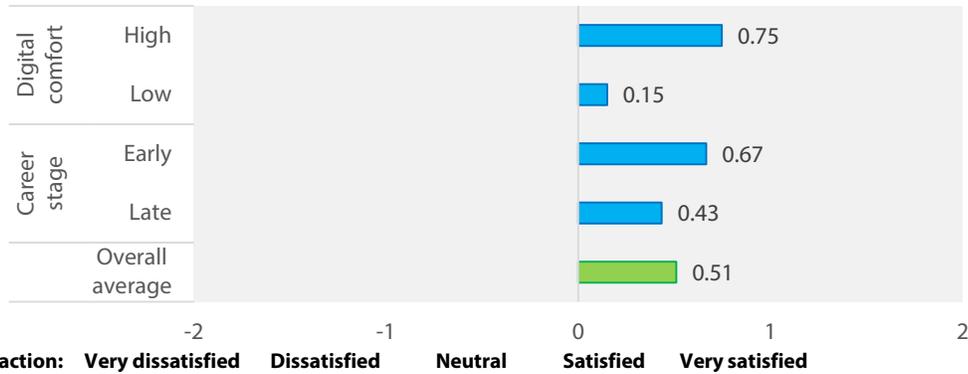

n=2154
source: Nordicity Arts in a Digital World survey (2016)

The figure below shows that artists with a high level of digital comfort are more likely to be satisfied with their investment of time and resources into digital technologies. The average score reported by artists with a low level of digital comfort was significantly lower. While the difference in satisfaction between artists in different stages of their career was not large, it is clear that artists in an earlier stage of their career are generally more satisfied with their investment in digital technologies.

Figure 18: Average satisfaction with investment in digital technologies overall, by digital comfort and career stage (artists)

Satisfaction: **Very dissatisfied**   **Dissatisfied**   **Neutral**   **Satisfied**   **Very satisfied**
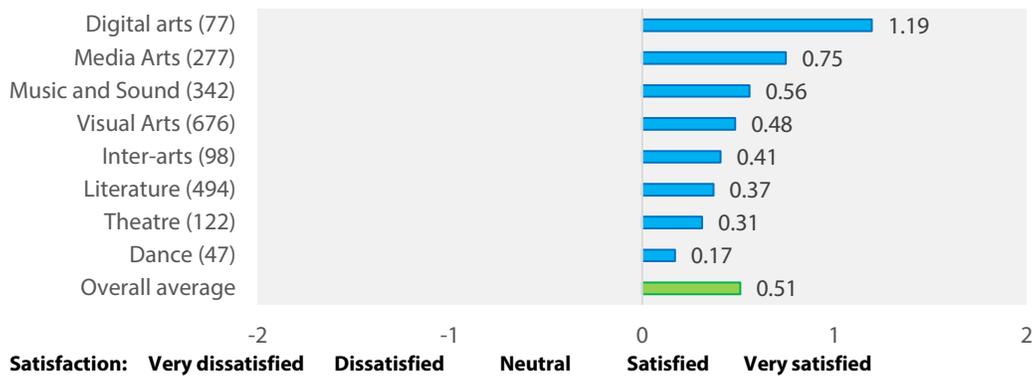
n=2,152
source: Nordicity Arts in a Digital World survey (2016)

The figure below shows that digital artists were overwhelmingly more satisfied with their investment of time and resources into digital technologies than artists working in other disciplines.

Figure 19: Average satisfaction with investment in digital technologies overall, by discipline (artists)

Satisfaction: **Very dissatisfied**   **Dissatisfied**   **Neutral**   **Satisfied**   **Very satisfied**

n=2,133
source: Nordicity Arts in a Digital World survey (2016)

Aside from digital arts, artists working in media arts, music and sound, and visual arts rated their satisfaction with digital technologies the highest. Dance, theatre and literature artists rated their satisfaction with digital technologies the lowest.